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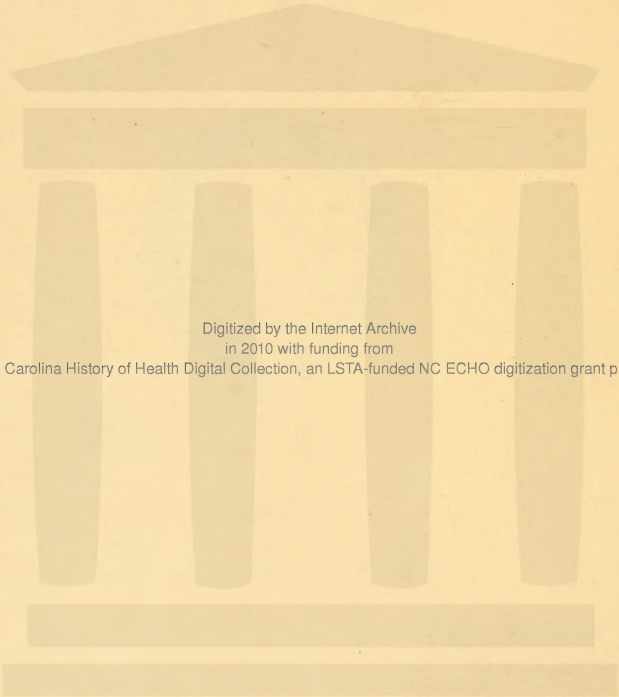

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VOL. XVIII, JANUARY, 1901, No. 1.

The Charlotte Medical Journal.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY.

EDITED BY E. C. REGISTER, M. D., AND J. C. MONTGOMERY, M. D.,

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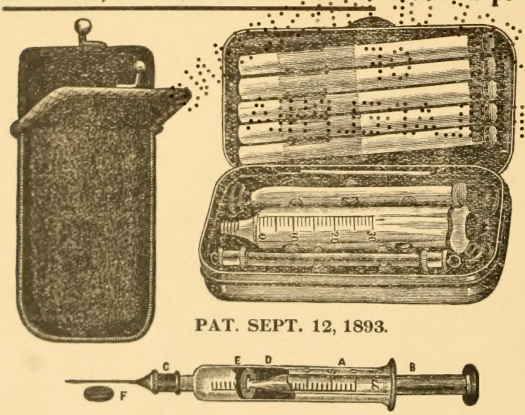

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The Charlotte Medical Journal.

VOL. XVIII. CHARLOTTE, N. C., JANUARY, 1901. No. 1.

Concerning the Etiology of Asthma.*

By John Dunn, M.D., Richmond, Va.

GENTLEMEN:—In my earlier studies of the nose and its diseases perhaps no one statement struck me more forcibly than that of Dr. Bosworth to the effect that he had cured (and, I inferred, permanently) nineteen out of thirty-four cases of hay asthma and twenty-eight out of forty-six cases of perennial asthma by surgical treatment of the intra-nasal tissues. For eleven years I have watched carefully the results of intra-nasal surgery in every case of hay and perennial asthma which has come under my care, and while I have made friends, have afforded relief from many annoying symptoms to more than one or two people, and while immediately after differing intra-nasal operations I have seen the asthmatic attacks disappear for varying lengths of time; the more closely these cases are observed the more convinced am I that it is neither hypertrophic rhinitis, nor nasal spurs, nor ethmoiditis with its polypi which causes asthma, and it has been my experience that save in very rare instances intra-nasal treatment cures neither hay nor perennial asthma. I have seen an asthmatic attack of great severity cut short in a few moments by the application of an 8 per cent. solution of cocaine to the nasal mucous membrane, and the patient have no or only a slight recurrence for weeks. In the especial case I have in mind where this happened the gentleman has perennial asthma, had been for a long time under the care of a distinguished member of this Society, has had asthma for many years and has it still. I have seen more cases where the intra-nasal application of cocaine has had little or no effect upon the severity of the asthmatic attack. I have under my care now a lady of sixty-five years, Mrs. T., who consulted me for nasal obstruction. Examination revealed complete blocking of the nasal cavities with polypi so numerous and large that they protruded from both anterior nares, and posteriorly from both sides of the nose into the naso-pharynx. Their removal showed a large obstructive nasal spur and extensive ethmoiditis. Her history is not uninteresting. Some six or seven years ago while she was suffering greatly from rheumatism her husband was paralyzed and his brain injury resulted in a most distressing mental condition. While nursing him, our patient, who was his constant attendant and often at night walked in her bare feet from room to room in her hurry to wait upon him, developed asthma of a severe type which lasted for about three years or until her husband's death. Shorly after his death she took some quack medicine for about ten days and the asthma disappeared—nor has she had an attack since, now some three years—and yet there exists an obstructive septal spur and a most extensive ethmoiditis with numerous polypi.

Mrs. T., a sufferer from rheumatism, is of a gouty family and has tophi about the joints of her fingers. Or, take the case of Dr. G., aged 50, who for thirty years or more has suffered intermittently from asthma. "When I am free from asthma I have rheumatism like the devil; and when I am free from rheumatism I have asthma"—his account of his case. With him any marked change of climate is sufficient to give him for a shorter or longer period cessation from his asthma. The time comes, however, when he has worn out his topographical welcome and—his asthma returns. He has a moderate deviation of the bony septum and some turbinate hypertrophy. Dr. G. has consulted how many nasal specialists I know not, but certainly others besides myself.

Mr. L., aged forty-eight, has a straight septum, and while there is some overfilling especially of the blood-vessels of the inferior turbinates, there is no marked hypertrophy, and yet he suffers trom perennial hay fever of such severity as to make life a burden. During the attacks his nasal mucous membrane assumes that watery, swollen, quasi-œdematous, anæmic appearance which, to the trained eye, tells the nature of the trouble. Mr. L. may be seemingly in good health; he will take his seat at the dinner-table and there are certain forms of food which within a few moments after ingestion will bring on an attack of over filling of the nasal membranes, hypersecretion of watery mucus and sneezing, with

*Read before the Southern Section of the American Otological, Rhinological and Laryngological Society, at Richmond, Va., December 1st, 1900.

sensations of great burning and itching of the intra-nasal tissues, nor will the attack subside for days. Mr. L. has consulted several of our nasal specialists and has submitted to enough burning and cutting at the hands of more than one to have demonstrated to him its usefulness as a remedial agent in his own case.

Mr. P., aged fifty-four, has suffered for fifteen or more years with autumnal hay fever in its severest form. Before he became a victim to this disease he had for months a form of diarrhœa for which his local physicians could do nothing. He visited one of the Virginia Springs, seeking relief. While there he mentioned to one of the habitues the object of his visit and was informed that the waters would check the diarrhœa, but that he would become a victim of hay fever. This lay prophet told true. The diarrhœa ceased; but since then he has had hay fever every autumn save one and this one his diarrhœa returned and lasted throughout the hay fever season. Mr. P.'s nasal cavities are, save when he is suffering from hay fever, normal in appearance.

Last spring I was consulted by Mr. A., aged twenty-six, whose complaint was that whenever he rode or drove he would have a profuse discharge of irritating fluid from his nose; this would be followed by asthmatic wheezing in his chest and shortness of breath. These attacks would come on at irregular intervals, but could be precipitated at any time by taking a drive in the open air. There were constantly present uncomfortable sensations in the nose, examination of which revealed extensive ethmoiditis with several small polypi. The middle turbinates and such portion of the ethmoidal cells as was deemed advisable were removed. The result? Mr. A. passed the summer in greater comfort than he had known for years so far as his nasal and asthmatic attacks were concerned, but he suffered from an obstinate form of diarrhœa, characterized by the passage through the intestines of many forms of food apparently totally undigested. I have notes of more than one similar case.

Mr. S., aged 65, suffered from asthma until he reached middle age, when gout of the toe developed. He has never had another attack of asthma, but continues still to suffer with gout in no light form. And lasily, Mrs. M., aged seventy-two, suffers at varying lengths of time with much discomfort and at times considerable pain in the frontal sinuses; during these periods of discomfort there is a constant dripping of a clear, watery fluid from her nose. A course of salol will cause the pain to diminish and the secretion to cease; but at the same time, it so lessens the urinary excretion that she fears to take it. Her fingers show gouty deposits.

The above cases appear at first glance to have been snatched from a grab-bag of asthma notes and presented unconnectedly. It it is not so. To me they all seem to teach clearly the lesson that neither "a neurotic condition" nor "some obscure atmospheric condition" nor "a diseased condition of the nasal mucous membrane," if we use the term diseased to mean turbinate hypertrody or ethmoiditis with polypi—neither one nor all are essential for the production of asthma. To me the above cases and not a few others similar in essentials seem to show that many of the intra-nasal conditions found in asthma are due to a cause similar to the rheumatic and gouty attacks, the diarrhœas and eczematous outbreaks and many other of the systemic disturbances which are found accompanying or alternating with the asthmatic attacks. Asthma cannot be due solely to ethmoiditis for, if so, why does it not occur always as a result of ethmoiditis? Why in some cases do the asthmatic attacks disappear and permanently in the presence of ethmoiditis, untreated, unchanged, unchecked? Simple hypertrophy of the turbinated tissue cannot be looked upon as a cause of asthma, for were it so asthma would be the most common disease of mankind. The "general neurotic condition" as a *sine qua non* of asthma has always seemed to me the weak spot in Dr. Bosworth's teachings; for hay fever and asthma attack every known temperament. Nor can the "obscure atmospheric condition" be allowed a place as a cause. Its very obscurity forbids it. For some asthmatics this "obscure atmospheric condition is present at all seasons of the year, at all hours day or night. Let us look for a moment at some of the cases above mentioned. It is highly probable in the case of Mrs. M. that the intermittent attacks of pain in the frontal sinuses with the resultant rhinorrhœa are due to gouty irritation of the mucous membrane of the frontal sinuses. (The intra-nasal tissues are practically normal). If gouty irritation can produce pain and discomfort with an excessive watery discharge from the mucous membrane of the frontal sinuses, there seems to me to be no reason why the gouty processes may not produce intense irritation of the mucous membranes of the nasal cavities.

Mr. L. had asthma until gout developed, when the asthma disappeared permanently. Dr. G. has rheumatism and asthma alternately. Mrs. T. had asthma; she now has gouty deposits in her fingers and never suf-

fers from asthma. Mr. P. has hay fever each autumn save when he has an attack of chronic (probably gouty) diarrhœa. In other cases, to be seen constantly in practice, asthma coexists or alternates with some well known disease in the same individual, and the patient's account of the exacerbations of each are alway interesting.

But, gentlemen, I would not have you think I believe that disturbances of the intra-nasal tissues bear no causal relation to the production of asthma. Far from it, for in an experience of eleven years I have seen very few cases of asthma in which there did not exist visible intra-nasal conditions which I believed were directly responsible for the origination of the asthmatic attack. If the retention in the blood of the products of tissue metabolism can produce rheumatism, gout, diarrhœa, eczema, and various other diseases, can as time passes cause degenration of the walls of the blood-vessels, should we consider it any wonder that these same products can by their irritative effect cause intra-nasal disturbance? This brings me to the point of my contention and I lay no claims whatever to any originality: Asthma, I believe, to be in most cases a reflex trouble, caused by the irritating effect of the retained products of tissue metabolism upon the intra-nasal mucous membranes. The two chief intra-nasal visible conditions which tell of this irritation are, first, that watery, swollen, quasi-œdematous and, in old cases, anæmic appearance of the turbinates and general nasal mucous membrane, due possibly to vaso-motor paralysis, a condition accompanied by an abnormal secretion of watery mucous and much nasal discomfort. The second is ethmoiditis with its resulting polypi. Both these conditions are the result of the irritating effect of the retained products of tissue metabolism upon the nasal mucous membrane, and are of the nature of gout.

Asthma is not a reflex of the swollen turbinates or of the ethmoiditis with its polypi, but of the intense irritation caused by the action on the mucous membrane of the metabolic products. This irritation may cause reflex asthma in a person whose nasal mucous membranes are between the asthmatic attacks, perfectly healthy so far as can be judged by the naked eye. It may be so intense as to cause ethmoiditis and thus beget nasal-polypi. Hay fever is a direct expression of this irritation. The two diseases are thus closely connected and not infrequently coexist in the same individual. Many of you, gentlemen, have doubtless wondered why I have not already used the terms uric acid and uricacidemia. I have not done so because I am not sure that uric acid is the only product of tissue metabolism which when retained in the blood and forced into the tissues is capable of producing irritating effects. That uric acid is the chief product in bringing about the disturbances under consideration I think not unlikely.

If the view above taken be the correct one then we can see at once that very few cases of asthma can be permanently cured by intra-nasal treatment of any kind. I do not say that intra-nasal surgery in cases of asthma with deflected septa, septal spurs, ethmoiditis with its polypi, etc., is not justifiable, but my experience has led me to believe that although surgical measures may, in these cases, afford, in many different ways, more or less relief to the patient at the same time they are not to be looked upon, save in rare instances, as methods of effecting a permanent cure of asthma.

Stated briefly, the object of this paper is to state that it seems to me that in most cases asthma is a reflex from irritation of the nasal mucous membranes; that the swollen turbinates and ethmoiditis with its polypi found in asthmatics are the visible results of this irritation; that the irritation is caused by the action on the nasal mucous membranes of the retained products of tissue metabolism; and, lastly, that this view places asthma in the same class of diseases with gout and epilepsy, the difference in the focus of irritation causing the difference in symptoms.

Osteoplasty of the Cranium for Tertiary Lesions of Syphilis—Details—Recovery.

By J. E. Massey, Jr., M. D., Rock Hill, South Carolina.

On May 28th, 1900, I was called to attend a patient presenting the following history and symptoms:

History.—J. D. A., white male, about aet. 35 years; weight about 150 pounds. About twelve years ago he contracted syphilis, and during the first three months of its course took no treatment.

During the past five or six years he has suffered very much with syphilitic rheumatism, for which he has taken a large amount of iodide of potash and mercury. He now presents the following symptoms:

He is lean and wasted, having little subcutaneous fat, and his face presents a worn and haggard look from pain. He suffers with intense headaches, which are worse at night, preventing sleep, and causing great

agony, almost driving him crazy. In fact he has temporary spells, during which he is demented and threatens his own life and that of others. Also at times he has convulsive movements, irregular in character, and confined to no special part.

Examination shows a sort of œdematous condition of the right temporal region and puffiness of the right eyelids, and also a bulging or fullness of the left anterior superior frontal region of the cranium, which might be compared to the bulging which an intracranial tumor would present it it could have eroded by pressure the frontal bone and pushed outward slightly in its growth. This latter bulging was also œdematous and pitted on pressure and was very tender on deep pressure.

Patient's temperature averaged about 100 deg. F., and his pulse ranged from 76 to 120 beats per minute.

I thought the diagnosis of the case was syphilitic periostitis (the frontal bone especially being involved), combined with intracranial pressure due to a gumma, or perhaps multiple gummata, and, therefore, strongly advised and impressed upon the patient the necessity of his taking potassium iodide in rapidly ascending doses, as far as could be borne, even to 800 or 900 grains per day if necessary.

At the same time, to control the immediate pain, opiates and the ice cap were constantly required. The patient could not be prevailed upon to take iodide of potash, and his mental condition was such that it was hardly possible to reason with him and he kept insisting that nothing but a surgical operation would keep him from dying.

He continued in this condition until June 5th, 1900, all the time demanding an operation for relief. His pain continued about the same, but under the influence of the ice cap most of the swelling disappeared from the right temporal region and right eyelids, but the left anterior superior frontal region remained in the same swollen state.

Finally, such being his condition, and as he would not take the potassium iodide as recommended, I agreed to operate on him, and justified the operation upon the following diagnosis, viz.:

Syphilitic periostitis of frontal bone, combined with intracranial pressure due perhaps to multiple gummata of the brain and membranes, or, perhaps, a single gumma, which may have undergone softening and demand drainage.

Anyhow, I thought that the intracranial pressure, whatever might be found as its cause, demanded relief as soon as possible. Therefore, the patient having been prepared as usual during the preceding night, his head being shaved and a green soap poultice applied, on June 5th, 1900, I decided to perform an osteoplasty of the cranium in the anterior superior frontal region of the left side, thus by incision of the tissues and abstraction of serous effusion, relieving the tension from the periostitis in that region, and at the same time making a large enough bone flap to examine widely the surface of the left hemisphere of the cerebrum in the frontal and anterior parietal regions for any possible lesions.

The patient being anesthetized with chloroform, and the field of operation and every thing intended to come in contact with the patient being rendered as near aseptic as possible, the typical horseshoe incision was made, beginning a little internal to the external angular process of the left orbit, and extending in a direction upward and inward nearly to the frontal suture, then gradually curving upward and outward to the coronal suture on the left side, then following the line of the coronal suture downward to a point about on a level with the beginning of the incision, with about 1½ inches uncut intervening between the beginning and the ending of the incision affording entrance for nutrient vessels for the flap. The frontal eminence of the left side occupied about the center of the flap, whose greatest convexity approached within about 1½ inches of the junction of the coronal and sagittal sutures.

At the point of greatest convexity of the flap, it was separated a little from the underlying bone, through which a small trephine opening was made, and through this opening the cutting beak of a De Vilbiss cranial bone forceps was entered with which a bone flap was readily cut in the line of the primary incision and corresponding in size to the skin flap.

I may say here that besides a very marked periostitis, an intense osteitis was present and the bone at the point of trephining was about three times its natural thickness. By entering a thin knife handle in the line cut by the De Vilbiss forceps, the bone flap was broken at its lower uncut portion, and the entire flap, bone and scalp attached, was bent over on the left cheek, thus exposing to view the dura mater, and right here was found the cause of the intracranial pressure, which was a *pachymeningitis externa*, reddish, small mushroom-like granulations being seen to cover a surface of about two inches square over the dura in this locality.

All these granulations were removed and were easily separable from the dura mater by the finger nail or back of a knife-blade. The surface of the dura was explored in all

directions as far as the finger could reach, and to facilitate this and to prevent possible wounding and hemorrhage, which would prove very troublesome if not alarming, with a probe-pointed grooved director, the superior longitudinal sinus was separated from its groove and retracted downward, and then the finger could easily explore a part of the dura covering the frontal lobe of the right hemisphere of the cerebrum, on which also a few spots ot granulations near the superior longitudinal sinus were found and removed. Now the dura was incised to the extent of about two inches, and the left frontal lobe was explored as far as the eye and index finger could reach, but there were no other pathological findings.

After controlling the oozing of blood with hot normal salt solution the incision in the dura was closed with a fine running catgut suture, several strands of silk worm gut being left beneath for drainage, as there was still a little oozing from small veins of the pia mater, and I didn't with to have a clot form here.

The bone was so badly diseased (looking almost necrosed on the under surface) that it was questionable whether it would heal all right, when placed back in position. However, the combined bone and scalp flap was placed in position and the skin incision closed by using interrupted silk worm gut sutures taken deeply in the tissues to support the underlying bone, silk worm gut for drainage being left between the bone and dura mater. The dressing and bandage were now applied and the patient was put to bed, covered with blankets and surrounded by hot water bottles. Also rectal injections of hot normal saline solution were given, as well as strychnia hypodermically and whiskey. The patient soon rallied, as there was no profound shock.

The operation occupied 1¾ hours. His recovery was uninterrupted, the whole wound healing very kindly, with no evidences at all of pus, although there was considerable oozing due to the intense periostitis and osteitis.

On the 8th day the silk worm gut drainage between the dura and pia was removed, but not until the 21st day was the drainage between the dura and bone removed.

I allowed this drainage to remain so long, as there was considerable oozing, and I thought that in tossing about the patient might inadvertently produce slight hemorrhage and a small clot be formed, and I certainly did not want to go back in there to remove it. The patient's recovery was uneventful, and at no time after the operation has he had any sign of the return of headaches and pain, nor has he had any mental derangement or convulsive movements since the operation.

He was finally discharged from treatment on August 31, 1900, and at once took a trip to Norfolk, Va., remaining several weeks, and is now pursuing his regular vocation as a stone and brick mason. However, when I discharged him it was with the parting injunction to *take iodide of potash in increasing doses up to 200 grains or more three times daily*, and I advised him to pursue this treatment intermittently for several years, else he would regret it and afterwards, in the course of a few years, be afflicted again with the same severe symptoms.

For I think he also has a periostitis and osteitis in the right temporal region and right orbital region, and unless he takes treatment this condition will grow worse.

Perineal Lacerations.*

By W. C. Brownson, M.D., Asheville, N. C.

It is not my purpose to take up the subject of perineal lacerations as the title of my pape might indicate, but only to consider briefly one question connected with it, this being, How can one best guard the perineum against injury in child-birth?

This is to me one of the most interesting questions in the whole domain of obstetrics. Compared with its study the consideration of such moot points in the science of midwifery as the relative merits of turning and instrumental delivery, the indications calling for veratrum, chloroform and bleeding in Eclampsia, or the most approved method of rendering the hands absolutely sterile, is of secondary importance.

For hundreds, perhaps thousands of years, the best minds of the profession have recognized the frequency of injuries to the perineum in labor and have studied to devise modes of procedure to prevent these accidents. The most diverse methods have been originated for preserving the perineum. These have been tested one by one as they have been advocated and have been found useless, dropped as without avail; they have been rediscovered, modified, then finally abandoned.

That perineal tears occur very frequently we all know; that in a large proportion of first labors slight rupture occurs, and that even in the hands of shilled obstetricians extensive lacerations are not unknown, and

*Read before the Buncombe County Medical Society, November 5, 1900.

still we hear at varying intervals reports of large numbers of consecutive cases of childbirth in which the self-satisfied narrator has saved intact all of the perinei engaged.

In the early years of my practice I was greatly impressed by such histories and I envied the historian his skill, while bewailing my inability to achieve such results. Now, I take all stories of the kind with a suitable allowance of salt and am not at all impressed, while I envy the reporter only his bump of self-esteem.

Estimates of the frequency of perineal ruptures differ widely, "depending on individual skill in management," the author of a leading text book informs his readers. It is more probable, however, that luck, a run of favorable cases, or an unfortuate series has a good deal to do with the discrepancy in figures, and something as well to the diligence with which one searches for injuries after the completion of labor; then varying ideas as to just what constitutes a rupture help us to understand how figures can puzzle us. In primipara lacerations occur in from 10 to 50 per cent. of deliveries. I will not venture to be more exact, though I might say with a writer who is not at all prone to make rash assertions, and whose skill none would doubt, "this structure" (referring to the perineum) "is in first labors generally torn a little." In multipara, ruptures occur far less frequently on account of the stretching or injury to which the perineum has been previously subjected.

The causes of rupture are many, depending on faulty position of the child, acuteness of the sub-pubic angle, (on account of which it is necesary for the head to go farther downwards in the direction of the perineum before it can pass forwards under the arch), imperfect flexion of the head or too early extension, precipitate labor, etc. Some times it would seem because of some defect in structure of the perineum by which it tears widely and unexpectedly "like wet parchment" to use an ancient simile.

In a vast majority of cases rupture is due to a large head and a small vulvar opening or the head is expelled before the occurrence of complete softening and dilatation of the perineum. In the former class of cases, no matter how skilful the attendant may be, let him be ever so watchful, with all his conscientious care the perineum suffers injury.

Now, how can the chances of laceration be reduced to a minimum and the physician be enabled to feel that he has done his whole duty by his patient?

The position of the parturient woman has probably something to do with the safety with which delivery may be accomplished. Up to the completion of the first stage of labor any posture that the woman chooses to assume is as a rule proper enough, but after the cervix is fully dilated, before this if the pains are frequent and strong and the head is advancing rapidly, the patient should be advised to turn upon her side. The time honored position which the woman assumes from the beginning of labor or from the time when she goes to bed upon the back, with knees in the air, is surely not that which one would assume if left to herself. She has learned this attitude from her friends and from the old women who often surround her and who have given birth to children with varying success in the same classical posture. A woman absolutely untaught would probably never instinctively assume a position flat upon the back with elevated knees. When lying thus the weight of the child's head is brought more directly against the perineum and the risk of laceration is increased according to Schroeder by over 13 per cent. compared with the lateral position the figures he gives are 37.6 per cent. of lacerations delivered when lying on the back against 24.4 on the side. There is some question as to the reliability of these figures. Most authorities do not insist on the lateral position in delivery, but there is less risk of injury in this attitude I am convinced. Fewer lacerations, at any rate, have occurred in my practice in the lateral position than on the back. When delivered upon the back the limbs should be extended instead of flexed during the perineal stage, there is evidently less downward pressure on the perineum in this position. Who has the credit of first advising this position I do not know, but it is generally accepted as sound in theory and gratifying in its results.

"Over half the number of lacerations are estimated to be due to imperfect expansibility of the perineum and the size of the head." Our object should then be to correct any faulty position of the head, to avoid any interference that may cause increased uterine action as the use of Ergot and to prolong the perineal stage.

As to "support of the perineum" so generally advised years ago, it is probable that it has done more harm than good. All sorts of methods for perineal support have been used, light pressure with the finger tips, strong pressure by the hand or by a bandage, pressure combined with perineal stretching, etc. These have been tried and and have been found wanting.

As Herman says in an apt illustration: "Suppose any one with a sleeve so tight

that the arm cannot be bent without tearing the sleeve over the elbow. Would tearing of the sleeve be promoted by pressing on it over the elbow?" Relaxing the perineum by pressing it with the fingers from the sides to the center has been advocated. This is impracticable, the fingers will slip. Sliding the perineum forwards over the advancing head by means of two fingers in the rectum while pressure of the thumb is applied to delay the head had the high authority of Goodell to recommend it. This was modified later and some one advises the thumb to be deeply inserted in the rectum and the fingers of the hand used to flex and to stay the progress of the head. Could one be assurred of the positive value of this means of procedure it would doubtless be used despite the objections on æsthetic grounds, but an increase of the normal stretching of the anus that takes place in parturition cannot protect the perineum while such manipulation will almost certainly increase the uterine effort which it is imperatively necessary at times to diminish.

Direct pressure upon the advancing head, keeping the head back until in your opinion the perineum is thoroughly stretched will do good and can scarcely do harm. When you feel that there is dangerous tension of the vaginal outlet and that the perineum will probably tear it has been advised to throw the bedclothes aside so that you can aid the sense of touch by that of sight. Certainly, if this can be of any advantage, mock modesty should be cast aside and the perineum carefully inspected but it is impossible to tell by looking at a perienum whether it is going to rupture or not. In aimost every case that may come under your care, if you watch the perineum from the time it begins to bulge it will seem to you that it must surely give way. For this reason the operation of Episiotomy, one or two lateral incisions of the vaginal outlet that is recommended by most authorities when rupture is imminent is never to be advised for no one is wise enough to tell when a suitable case for its employment has appeared. Laceration may seem inevitable and yet not occur. "There is no method of estimating the expansibility of the perieneal structures."

"Shelling out processes" are advised and practiced by some of our most trusted teachers, the expelling of the head by rectal expression during the interval between pains. If any one firmly believes that a head which cannot safely pass an elastic orifice at its maximum dilatation during a uterine contraction can be forced along through this opening without damage while the uterus and perineal structure are taking a little much-needed rest he should try this method.

I doubt if chloroform as it is ordininarily given for its analgetic effect during uterine contraction helps it any measure towards preserving the perineum, indeed because of its benumbing effect the woman is encouraged to bear down more strongly and to do in a few pains what would take a far greater number were she fully alive to her suffering. When given to the surgical extent, until there is complete relaxation its effect is manifestly different, but we cannot always have a trained assistant at hand and without one except in rare instances, no one should venture to profoundly anæsthetise a woman in labor.

In summing up we are led to these conclusions. A large percentage of perineal tears are unavoidable. Perineal support is useless if not dangerous. Pressure should be applied directly to the head when it seems to be advancing too rapidly for the safety of the perineum, pressure by the whole hand not by the tips of the fingers as shown in the "picture books." A head coming along under a fifty-pound pressure will not be long delayed unless a good deal of strength and some dexterity is used to oppose it. Profound anæsthesia in some cases where an assistant is at hand, then if the head cannot be expressed readily, slow, gradual, careful delivery by the forceps. These measures will save at least some of the perinei intrusted to our keeping.

DISCUSSION.

Dr. Purefoy.—Dr. Brownson has given us a practical paper, one which I have enjoyed. As to the character of the perineum, they differ just as much as the face. Some of them are almost absolutely non-elastic. I recall two patients on whom it was necessary to use the forceps, one a case of convulsions where a rapid delivery was absolutely necessary. I used the forceps and delivered the woman while she was still unconscious, and there was practically no laceration of the perineum. About two years ago I delivered a woman of a very large child, still-born, had been dead about 12 or 13 hours. It was necessary to use the forceps, and practically there was no laceration. On the other hand I have seen those cases where the laceration would occur in spite of the world, the flesh and the doctor, and it is due largely to the character of the perineum. I believe that the per cent. is controlled more largely by the elastic or non-elastic character of the perineal tissues than by the skill of the obstetrician. I believe in pressure to relieve the risk of a perineal laceration. I usually take a hot

towel, and with the palm of the hand support the perineum. I believe it is not a matter of much choice whether the woman is on the back or on the side, but no matter what the position of the patient, just when the head is coming down on the perineum I use the hot towel. They say it renders them much more comfortable, I do not know just how. It requires a good deal of pressure. You can even put pressure enough with the aid of the perineal muscles, to elongate the head. That is what you want. Often you see children born with the bones overlapping. That saves the perineum. If we can put pressure enough in the right direction to even change the shape of the head that would lessen the risk of a perineal laceration.

Dr. McBrayer.—I only want to say that I have tried that pressure business. I was taught that in a school, and I agree with the doctor heartily. I never could see what good it could do. As he said, the fingers are very slippery. The hot towel might stay a little more in place, but I am not of the opinion that anything is accomplished by either method, as the only two things that seem to me to increase the elasticity and dilatability of the perineum are chloroform and morphine. I do not know whether morphine is mentioned in the text books or not. I do not, as a rule, give the morphine especially for the perineum. Not longer ago than this week I was called to see a primipara who was having pains and sending for me every 30 minutes. The os was not dilating any, although she had been in labor 10 or 12 hours. I gave her one-fourth grain morphine and repeated in an hour. I gave it by the mouth in this instance, and left another one-fourth gr. with instructions if she was not feeling more comfortable in an hour to report, which they did, and in three hours from that time the vagina was moist, the os was beginning to dilate and was soft and had lost that fishy feeling, and the perineum was also relaxed. When I examined before I thought that was a favorable perineum for attack, but under the influence of the morphine the os gave way beautifully, also the perineum. As to chloroform, I can agree heartily with the doctor. It is not pleasant to give chloroform by yourself, but you have got it to do a great many times, and when I think it is needed I never hesitate to give it. In fact I give chloroform and have some of the ladies attend to it, and use the forceps by myself sometimes, but I do not like to do it. I heartily agree with the doctor when he says that chloroform to a certain extent relaxes the perineum, and to a certain degree is probably the best of all things we have, and so far as I am concerned I think it is perfectly legitimate to give it to a certain extent in all those cases. I had a primipara about 30 years old, and as I usually do I applied the forceps, and before the head got out into the middle strait the perineum tore. I don't know what tore it, but it was one of those parchment perineums I suppose. The perineum split wide open before the head got to pressing on it, but in due process of time the living child was delivered and the perineum restored.

Dr. Fletcher.—There are two or three points I would like to hear discussed, and one that interests me most is the position of the patient during confinement. I was taught to confine my patient on the left side. I believe that is the normal English position. There is something else to be considered in labor besides saving the perineum. I agree if that was the only thing that posture might be all right. I have abandoned it long ago. There are two kinds of tears. One when you have a head and have not expulsive force enough to relieve it. The perineum tears because the head has been on it too long. There is another class which you can relieve by giving chloroform almost to a degree of profound anesthesia to retard it. If you cannot retard it, hold it. There are two conditions, one where you wish to encourage the head to come, and the other you want to stop it. The left side to me, is an unnatural position for delivery. The object is to get the child out, and when the woman is on her left side you cannot help her so well. I know if a woman can have the free use of her arms and limbs, and make the expulsive pains and pull on some fixed point it does help. If you want to have a bowel movement it is the same thing. The abdominal muscles come in and help. No body would think of lying on the left side to have a bowel movement. I am convinced that the proper position for delivery is flat on the back. In college, you have perhaps heard, when the class came up to be examined, one of them was asked how he would support the perineum, and he said he would do it with the bandage. I don't know how he would do it, but nine times out of ten it amounts to just as much as the assistance we give them.

Dr. Watson.—I do not believe the perineum can be saved if the conditions are unfavorable, that is, if the head of the child is very large and the vagina small. There are so many conditions that enter into each case that I hardly consider the perineum. I allow the patient to assume any posture she pleases, and I believe they generally prefer the left side. In regard to the point

made by Dr. Fletcher that the vagina becomes dry and thus delays the labor, I would say under those conditions, when the delay threatens to become dangerous, I at once place the patient under chloroform to the full extent, and use the forceps. As a means of preserving the perineum I consider the forceps one of the best I know. I have fewer ruptures when I can have the patient completely anesthetized and use the forceps. The explanation of this is that I am thus enabled to hasten or delay the labor as I may see fit, judging by the appearance of the perineum and by the touch how much pressure it will put upon my forceps. I have the labor completely in my own hands, and hasten or delay it as I deem best. I am rather surprised that no one has suggested the forceps as a means of saving the perineum, in view of the fact that we can completely anesthetize the patient, thus insuring great relaxation of the perineum, and yet not interfere with the progress of the labor, especially as we can greatly aid it with the forceps, similating the normal pains. But, as I said before, I do not attach any great importance to the perineum any way. If it ruptures we simply sew it up. The doctor has mentioned possibly the best methods known of preserving the perineum intact, but as far as my experience goes they are not at all reliable, indeed if they have any particular value.

Dr. Meriwether.—In my experience there are only two ways of saving the perineum, that is with chloroform and the forceps. Only two weeks ago, using chloroform and trying to hold the head back, the perineum was torn. I believe in that case if I had fully anesthetized the pntient and used the forceps I would have saved the perineum. I heard a discussion in Philadelphia some three years ago, taken part in by leading gynecologists, and their estimates of the number of lacerations ran from 50 to 95 per cent., not necessarily all requiring sewing up, but some laceration of the perineum. This woman I spoke of was attempting to assist herself, which I consider a very injudicious thing to do. She was not fully anesthetized. She was a very large, strong woman, and she really forced the head past the perineum. I think the use of the forceps will do more than anything to save the perineum. The chloroform stops the use of the voluntary muscles. The forceps is not only to draw the fœtus out, but also to assist to some extent in correction of the malposition.

Dr. Reynolds.—I agree with most of the doctors that there are some perineums which will tear in spite of the world, the flesh and the doctor, but I do not believe by using the forceps you can lessen those tears. If you have a perineum stretched to its utmost by the head, and then add the blade of a forceps on either sideyou will have something tear. I think a great many lacerations we have, particularly those that will lacerate under any circumstances, are due to too rapid deliveries and deliveries with forceps. It seems to me statistics will bear that out. You can administer chloroform and get relaxation of the muscles without the addition of the forceps and yet have sufficient contraction of the uterus, that is in normal labor, to expel the child, but when you add a blade of the forceps on either side, with the perineum stretched to its utmost, something will tear. It seems to me if you bring the head down to the perineum and then remove with the forceps you will have many less tears than you otherwise would if you carry them on to complete delivery. Two or three weeks ago I saw a case where there was complete inertia. and the child delivered with the forceps and carried to the outlet, the forceps removed, and then by manipulation of the hand the head was expelled without the forceps, and there was not a sign of a tear, with a small outlet and a large head. It seems to me that the point referred to by Dr. Brownson about stretching out the limbs is a good one. With delivery on the side you can certainly watch the perineum better than you can on the back. A guide to me that has always been satisfactory, and which I think has saved many a tear, is, when the head is coming, if you will watch the perineum, with the woman on the side, just before it tears you will see a line like a scar tissue, almost as plain as the line of demarkation in scarlet fever, and if you will then make that 50 pound pressure on the head and push it back and let it come again five or six times until it gradually relaxes the perineum you will save that tear.

Dr. Watson.—When you have the perineum greatly stretched, if you think it is going to tear, you can completely relieve your patient and stop all pressure and take as long to deliver as you want, if you completely anesthetize her. If you carry the blades of the forceps well up you have plenty of room and do not have the pressure on the perineum.

Dr. Pearson.—My experience in cases of labor has been very limited since I have been in Asheville. Prior to this time I had four years of country practice, but I think the point some of the doctors have made in the use of the forceps after the patient has been completely anesthetized is this, that when the head is coming down very rapidly

and the perineum has not had time to expand to its fullest capacity, then by pushing the chloroform until you get the patient entirely under its influence, if the uterine contractions lose their force, or are not forcible enough to expel the head then apply the forceps and deliver the child. But I think if the uterine contractions have force enough, and the head seems to be in the right position, we ought to wait for nature to expel.

Dr. Crawford,—I have never used the forceps a great deal. I have never used much chloroform. I have practiced a good many years and have had two slight lacerations since I have been in Asheville, one a primipara who was in labor about 18 hours. I had laceration and sewed it up and she got well, but I have always been able to protect the perineum, as I thought. I may have been mistaken. In all my practice I have never had more than half a dozen lacerations, and have not given chloroform over a dozen times. I had a case a short time ago. When I got there the woman was having spasms—puerperal eclampsia. I did all in my power to save the woman until I got Dr. Fletcher, and I gave chloroform. We delivered the child with the forceps and we had no laceration. I have always supported the perineum. I have tried the patient lying on the left side, and I think she can use all her muscular power in assisting herself in labor on her back. The great trouble with the physician is that he is too hasty, and does not let nature do the work, but will do it himself.

Dr. Brownson.—I have very little to say in closing. I realize that my paper is very incomplete, and some points scarcely touched on, others left out altogether, but I do not see that any one disagrees with me particularly. I believe that the quality of the perineum has, of course, a great deal to do with whether or not it ruptures. I think it makes very little difference whether you deliver on the left side or on the back with the limbs extended when the perineal stage begins, but I think that is quite important. I believe in a great many cases you can save the perineum by giving chloroform to the surgical extent and delivering with the forceps, but it is a rather radical measure, and might do harm if very vigorously advocated.

Old Doctor: The child appears to be teething.

New Graduate: Impossible! The bacteriological diagnosis discloses no trace whatever of the characteristic teething bacillus. —*Detroit Journal.*

The Syringe and How to Use It.

By H. S. Lott, M.D., Salem, N. C.

The syringe is one of our most valuable remedial agents, and one the use of which is not given the care and consideration it deserves.

Coming, as it does, within the province of every physician to recommend the use of the syringe, it is surprising how little thought is given to the fact that there is a right way, and wrong way, to do every thing; and because of its seeming convenience, the latter is generally chosen by the patient.

Now, let us picture for a moment the anatomical arrangement of the parts: from below upward; vagina, most often with relaxed and flaccid walls; uterus, with weakened supports and added weight of its appendages; may be all below the pelvic health lines. Behind, a loaded rectum; in front, an irritable bladder. Now squat the woman over a vessel, with the body upright, or stooping, thus adding the additional weight of the abdominal, to the distorted state of the pelvic organs, and imagine both the pain and the folly of forcing the nozzle of a syringe into this vagina, and squirting in a little bit of physic. Always upon inquiry of a patient who has had a general order to "use the syringe" as to how she used it, she tells us that she used it in this position, and she also tells us that "it hurts," and she feels little better afterwards.

Nor is the license to thus use the syringe accorded alone by the general practitioner, who has not given the matter especial thought; but its absurdity, as well as its possible ill effects, were impressed upon me, and the subject opened to discussion, by a paper, with cuts, which appeared during the past year, in an issue of the American Gynæcological and Obstetrical Journal, written by a gynæcologist of much note, in which he advises the use of a funnel shaped machine, of his own devising, "for spreading out the folds of the vagina, and reaching every part." When using it "the patient places herself in a semi-reclining posture on the douche pan, and, grasping the handle firmly, introduces the blunt, rounded nozzle into the vaginal orifice just far enough to plug it and prevent any reflux of the fluid, which is now allowed to flow in and distend the vagina thoroughly." And, in closing, the author says that he "has not used the instrument long enough to speak of the advantages of using a high pressure so as to put the vaginal walls under marked tension;" which is likely. And if he does there is sure to be an explosion, of either the machine or the woman; and the one,

or the other, might prove embarrassing. The anatomical arrangement of the parts, the upright position, with its unavoidable muscular tension, all condemn the method as impracticable, and possibly hurtful, and especially so in the hands of the patient.

The best syringe for irrigating the vagina is the Davidson Bulb Syringe, or one of like make. It is best because it gives a full, forcible stream—which force can be tempered and applied, to suit each individual case, by the intelligence of the hand. The Fountain Syringe, a pretty play-thing, is recommended because it is fashionable, and approved and preferred, by patient and nurse, because it is somewhat less troublesome to use—neither of which reasons make it effective, or helpful.

When using the syringe, the woman should be placed on her back, with the knees drawn well up toward the abdomen, as during labor. The feet resting firmly on the bed. The pelvis and hips should be raised to a plane somewhat higher than the head and thorax. This is best done with a heavy quilt, folded small and thick, and slipped under the hips just high enough that the perineum is on a line with its lower free border.

A douche, or bed, pan is quite a convenience, although in its absence I get along much better with a tin hand basin, which is placed snug up against the folded quilt, its upper edge slipped between the quilt and the nates. In this position it catches the return flow, protecting the bed, and its size makes it possible to finish the irrigation without an emptying of the vessel.

In this position the uterus, instead of being jammed down to the vaginal outlet, recedes toward the thorax with the abdominal viscera; the pelvic organs are relieved of mechanical congestion, and the vaginal walls put on the stretch, thus permitting the irrigation to reach all parts and surfaces of the tract.

For such irrigation, I like best a gallon of hot water, as hot as can be borne by the hand—a little hotter than the patient takes with comfort at the start. This in a pitcher, and held by an assistant, is most convenient, the depth of the pitcher making it more certain that the foot valve of the syringe is submerged.

It adds very much to the moral effect to put something into the water—something that smells. And, in truth, if the water is sufficiently hot, the good result is not lessened by the addition. As to what you put in, it makes little difference.

130 South Cherry Street.

The Treatment of Neuralgic and Rheumatic Affections.

By D. S. Maddox, M.D., U. S. Examining Surgeon, Marion, Ohio.

In spite of extensive researches into the functions of the nervous system, we have not yet succeeded in obtaining precise and certain data concerning neuralgia. Austie thus defines neuralgia: "A disease of the nervous system manifesting itself by pains which appear to follow the course of certain nerves, ramifying sometimes into a few, sometimes into all of the terminal branches of these nerves."

What is of importance for us to know from its bearing on treatment, is the etiology and pathology of this affection. In order that the functions of the nervous system may be normally performed two conditions must exist, viz.: 1st. The integrity of the nervous system itself, its cells and fibres. 2d.. The integrity of the circulatory system. From the standpoint of the nervous system, all alteration from the changes of neuritis to simple molecular disturbance may be the starting point of the clinical manifestation described under the name of neuralgia. Wounds of nerves, irritation, compression, inflammations, are all many causes of neuralgia.

Due to circulatory troubles, two sorts of neuralgia may be distinguished; one of which results from want of blood, anæmic neuralgia; and one from excess of blood, congestive neuralgia. Lastly, in certain cases neuralgic affections originate in alterations of blood itself. Thus, chlorosis, malarial and other blood-poisoning conditions and diathesis such as gout may give rise to this affection.

At the periphery any cause which through traumatism or atmospheric change modifies the terminal sensory fibres may determine a neuralgia which shall spread to all the ramifications of a nerve; as for example, dental neuralgia, a carious tooth produces some alteration of the dental pulp and an irritation spreads along the dental nerve, causing pain in all the branches of the trifacial.

Another affection whose primal cause is often a matter of as much doubt as that of neuralgia, is chronic rheumatism. This is a term which is loosely applied to many ailments not really of rheumatic origin. Almost any obscure and obstinate pain which is not traceable to some other agency is apt to be attributed to chronic rheumatism. Under this head there come to be ranked many aches and ailments which not being of rheumatic origin have no claim to the title.

Chronic rheumatism properly so called is a milder form of the subacute variety in which there is not sufficient local inflammation to prostrate the patient or to raise the temperature. Just as the acute runs into the subacute so the subacute runs into the chronic by insensible gradations. It also exists independently of them. The malady is characterized by the occurrence of pains, obstinate in nature, and sometimes shifting in character, affecting the joints, muscles and fibrous capsules. The affected parts may be somewhat tender to the touch, but are not as a rule distinctly swollen. The pain is increased by damp and cold. It often disappears in fair and returns in wet weather. It is a troublesome ailment which frequently lasts off and on for months, even years. During its continuance there is often laid the foundation of future cardiac troubles. In the age, in the personal and family history of the patient, in the shifting character of the pains, and in the occasional slight rise of temperature we have the best means of distinguishing true chronic rheumatism from the other ailments, gouty, arthritic and neuralgic with which it is often confounded.

The treatment of neuralgic and rheumatic affections is both constitutional and local. For some time now I have been using the Tongaline Preparations in the treatment of these maladies and the results so far have been most gratifying.

For a man aged 37, who had acute articular rheumatism, I prescribed Tongaline Liquid in teaspoonful doses every two hours, until the pain and fever were under control; then every four hours. In five days the patient was able to walk without assistance.

For a case of chronic rheumatism, involving the muscles of the right shoulder and arm, whereby the patient, a mechanic, was incapacitated for work, Tongaline and Lithia Tablets affected a permanent cure in three weeks.

In all chronic rheumatic affections whether located in the joints or muscles, Tongaline and Lithia Tablets invariably give relief. I have used these with excellent results on all soldiers who have been rheumatic since the war.

A lady patient had periodical attacks of facial neuralgia. Defective teeth were thought to be the exciting cause, but after having been extracted the neuralgia still continued. Tongaline and Quinine Tablets were then ordered and promptly cured the affection, which was undoubtedly of malarial origin. These tablets also speedily relieved a case of subacute sciatica in a young man.

In acute rheumatism I invariably prescribe Tongaline Liquid. On account of the inactive state of the stomach and bowels in acute disease, I believe liquid medicines are much more quickly absorbed than are the solid ones. In chronic cases this objection does not obtain and the tablets are then just as efficient and far more convenient.

The Surgical Treatment of Cancer of the Stomach.*

By Frank T. Meriwether, M.D., Asheville, N. C.

Cancer of the stomach is the most frequent of all malignant diseases, between 35 and 40 per cent. of all cancer originating in the stomach.

Richardson states that from 0.5 to 2.5 per cent. of the total death rate is due to cancer of the stomach, while Van Valzah puts it at one per cent., three-fourths of these cases occurring between forty and seventy years of age.

The most common form of Gastric cancer is the Scirrhus which is found in 72 per cent. of the cases (Brinton), though the medullary, colloid and cylindrical celled epithelioma are occasionally seen.

The Pyloric end of the stomach is the part usually affected, the disease being localized there in 60 per cent. of the cases, the cardiac end being affected in 10 per cent and the Body in 30 per cent. When the Pylorus is affected it is almost always of the scirrhus type, producing stenosis and great emaciation. Scirrhus carcinoma is of rather slow growth here as elsewhere, does not break down early, and hemorrhage is not so frequent as in the medullary, colloid and other types, where rapid growth and ulceration almost always preclude any hope of operative interference.

The importance of early diagnosis we can not lay too great stress upon. It must be remembered that a tumor is not necessary for the diagnosis, in fact Czerny Kraske and others insist that when a tumor is distinguishable, a radical operation is out of the question.

The difficulties of diagnosis are great as compared with the dignosis of breast and uterine cancer, but the symptoms are very positive.

A person of middle age or beyond, with a history of chronic gastric disturbances, who commences to emaciate rapidly, de-

*Read before the Buncombe County Medical Society, Dec. 3rd, 1900.

velopes a more or less persistent pain in the stomach, loses appetite and strength, vomits occasionally after meals, has increased salivation, has obstinate constipation, and possibly vomits blood, though many cases go to their death without hemetemesis, presents a fair picture of malignant disease of the stomach and should lead to a thorough examination. At times under anesthesia, a tumor may be felt which could not otherwise be detected. What will be a tumor to one will not be to another, the sense of touch differing so very much.

An examination of the stomach contents for Hydrochloric and Lactic acids together with a microscopical examination for the elements of cancer cells and the Lactic acid forming bacillus, together with the "faden" bacillus, a long thread like bacillus which has not been found in other gastric diseases, will often clear up the disagnosis.

Hemmeter has shown however, that hydrochloric acid may even be increased in gastric cancer when the growth originates upon the site of a gastric ulcer. Hydrochloric acid is absent in about 60 per cent. of the cases, and while the presence of Lactic acid is not proof of cancer, it being found at times in cases of motor insufficiency, it is of value as a corroboration. The best and easist test for Hydrochloric acid is the Boas resorcin test, composed of 5 parts of resorcin, 4 of white sugar, and 100 parts of dilute spirits. This when added to an equal quantity of filtered gastric contents and evaporated will give a red color if the acid be present. For Lactic acid, Uffelmans test, composed of 10 c.c, of a 5% solution of Carbolic acid added to 20 c.c. of distilled water, and then adding a few drops of Liquor Ferri-Chloride, is the simplest. This when added to the gastric filtrate will give a distinct canary yellow color if the acid be present.

Lessened motor activity is always present, and if pylorus be involved, dilatation of the stomach is usually found. Dilatation is somewhat dependent upon the length of the gastro-hepatic ligament. If this is short dilatation will probably occur early, if long, the pylorus being allowed to hang low, the stomach empties itself more readily, and the dilatation does not always show itself.

If nests of cancer cells be found free in the stomach contents it will confirm the diagnosis, but I would oppose the procedure recommended by Hemmeter, Boas and others of removing a portion of the growth for examination by means of instruments introduced through the esophagus. We all know the increased activity of all malignant growths when they are incised, or imperfectly removed, new channels for infection being opened, and Senn even says that "Diagnostic Massage" may cause increased rapidity of growth by squeezing the cancer cells into the surrounding tissues.

The X-Ray has been used, but it is of doubtful utility until the growth has become so large that it may be palpated. It is possible that with the tumor on the posterior wall the X-Ray might be of great advantage.

When the diagnosis cannot be made with certainty, an exploratory operation should be considered. This should be done early, and under strict asepsis, may be done with but little danger and the stomach explored both digitally and by sight.

What should be done with these cases? Surely medicine offers nothing more than the merest palliation. It cannot prolong life and is almost unable to even render the patient confortable. The rapid emaciation, in a case I saw last year amounting to the loss of forty pounds in four months, the starvation accompanying, together with the pain make a most hopeless picture, Surgery is the only hope, offering a cure in a large per centage, and almost sure palliation in a still larger per centage of the cases.

According to Gross, cancer of the breast untreated, runs its course in 28.06 months. Warren states that of 536 cases of breast cancer which were operated upon, the average duration of life was 38.5 months, the operation prolonging life only 10 months over the life of those unoperated upon.

No one would think of refusing an operation to a case of breast cancer even though the hopes offered are so slight, and yet in gastric cancer, though the first mortality is higher we can offer more than this.

Billroth, who is generally said to have originated Pylorectomy, but who did not Pean having operated in 1879 and Rydgier in 1880, both, however losing their patients, reports 29 cases with a mortality of 55 per cent. Of those who survived life was prolonged to periods varying from ten months to five and a half years. Czerny in 12 cases with 5 deaths, reports that these surviving lived from two to twenty-six months.

Of 149 cases of malignant obstruction of the Pylorus operated upon by gastroenterostomy with the Murphy button, which I collected, the mortality was 35 per cent., those surviving living many months, some of them many years, gaining strength and weight and being in comparative good health, relieved from that gnawing sense of hunger and pain, the growth of the tumor being lessened, at least for a while, the patients being in many cases enabled to resume their former occupations.

One feature of advantage in early operations upon stomach cancer, and all operations should be early, is the fact that the glands are not apt to be involved. Sutton says that only about 50 per cent. of all the cases dying from cancer of the stomach have glandular infection, while Brinton places it at 25.5% and Welch at 35%. The glands may be enlarged and yet not malignant. Such has been shown to be the case in cancer of the breast (Halstead) and in cancer of the lip, and even in gall-stone obstruction (Fenger), the enlargement being caused by the inflammatory processes acompanying the malignant growth. Mayo says that "in 29 cases of non-malignant growths of the stomach operated upon by him, in more than half enlarged glands could be palpated." Without doubt, the removal of the irritation of the growth by food passing over the diseased portion, lessens the rapidity of the growth, analogous to what we see in the operation of colostomy for rectal cancer.

What operation or operations should be done is dependent upon the location and the character of the growth. Malignant growths of the Pylorus, its most usual form being the Scirrhus, are the most amenable to operation. If seen early, before adhesions have formed, a Pylorectomy is indicated, removing the entire mass. Carcinoma of the stomach seldom invades the Duodenum, it stopping short at the pyloric end. In pylorectomy, after the pylorus has been removed, the anastomosis may be made end to end, but it would seem best to close the stomach, avoiding the fatal angle of the Billroth operation, and make an anastomosis into either the anterior or posterior wall of the stomach, preferably the latter, either by suture or with the Murphy button. The Billroth operation of Pylorectomy gives a mortality of 30%, while the Kocher operation is only 10 per cent.

If the Pylorus is so involved as to prevent its entire removal or if adhesions are such as to absolutely preclude a radical operation, or if the glands are much infected, a palliative operation should be done, doing a gastroenterostomy, preferably with the Murphy button, together with a gastrostomy at the same time, such as I have recently recommended. Feed the patient through the gastrostomy tube until strength is regained, and then remove it, allowing the fistula to close.

In cancer of the body of the stomach the outlook is not so favorable. Sixteen cases of gastrectomy have been reported with a mortality of 50 per cent., those surviving, gaining strength and weight, but the number of cases is still too small to be of great value.

Removal of the cardiac end of the stomach for cancer limited there has been advocated, but it is doubtful if it has been done upon the living subject. I have failed to find such a report. In cancer of the cardiac end the operation indicated is a gastrostomy. A gastrostomy is a simple operation, may be done if necessary under local anesthesia, takes but a few minutes to do it and enables the patient to take food through the tube ad libitum, and to be fed immediately after leaving the table. The cases reported show remarkable results and this operation should be elected in all malignant growths of the lower end of the esophagus and the cardiac end. The mortality of gastrostomy is about 22 per cent. with the present operation and seems to be decreasing every year. It is probable that with improved technique, and greater experience in the operations, all these mortalities will be very much decreased. However, the disease being so absolutely fatal, and the symptoms so distressing, the operation should be so offered to all patients suffering from cancer of the stomach, and though we can offer so little, the patient will often accept the chances.

DISCUSSION.

Dr. J. H. Williams—I have had no experience whatever with the surgical treatment of these cases, but I have had four cases that were undoubtedly carcinoma of the stomach. They responded to the tests made, and I had the pleasure of having the assistance of such men as La Place and DaCosta, of Philadelphia, to assist me in making my diagnosis. The result of the four cases was death in every one. I advised in every case at least an exploratory incision, with the hope that possibly we might do such work as would add to the comfort of the patient at least. But in each of the four cases it was declined, but the result was fatal, as stated. Three of those cases were of our own citizens, one case of Mr. H., another the case of Mrs. H. In that case the carcinoma of the stomach was secondary to a primary infection which took place in the breast. The third was a Mr. T., whose case Dr. M. will recollect as having seen with me. The other case was a visitor here. All cases promptly died with all the signs and symptoms of carcinoma of the stomach. I have had no experience with surgical treatment, as all surgical treatment was declined in all of the cases.

Dr. Fletcher—I have not been practicing medicine long, but I am satisfied I have seen three or four cases, and have been able to diagnose them, and possibly I have let

as many others die without diagnosis. I recently saw a case and had it under advice as to whether we would do an exploratory operation on him. For two weeks he had complete obstruction, and in that time he died. Those of us in every day work overlook these, but there is no doubt that we do come across them in our practice.

Dr. Glenn—I cannot say any more than Dr. Meriwether has said, but I can certainly see the importance of his paper. I have had but one or two cases in my general practice, but in the hospitals we see a great many of them. In speaking of the palliative treatment for pyloric obstruction, where you have to do gastrotomy or gastroenterostomy, in advanced cases life is prolonged and death made easier. I think where there is trouble with the cardiac end of the stomach gastrostomy gives more relief to the effort of trying to feed and not being able to do so than almost anything we have been able to do. I know a case of a gentleman who had always been a good liver. The man gained in weight and was so relieved by the gastrostomy he was living very comfortably when I saw him six months ago. When we dismissed him from the hospital the surgeon remarked that we would send him home to eat his thanksgiving dinner. He first started him to eating by chewing his food and spitting it into the tube, but he was so disgusted with the idea of spitting in his own stomach that he gave it up. I think it is a very important paper, and in most of these cases early surgery promises a great deal.

Dr. Meriwether—The main point I wanted to lay stress upon was the early and proper diagnosis. We all see many cases of cancer of the uterus and cancer of the breast, and the occurrence of cancer of the stomach being so frequent, I think it is often overlooked. I presume the doctors are often too busy to make a thorough examination. It is a very simple matter to test the contents of the stomach. Dr. Glenn has suggested that I report a case operated on last spring, of cancer at both ends of the stomach. This woman was a very positive case of carcinoma of the stomach, though she had been treated many months for a simple gastritis. Both ends of her stomach seemed to be involved, the cardiac end only slightly. In her case we did a gastro-enterostomy with a Murphy Button and a gastrostomy, feeding her at once through the gastrostomy tube, and she gained very rapidly after the operation. She went down somewhat at one time, but the doctor tells me that she is piling on weight again. That was last spring. She had lost 40 lbs. in four months, and, judging from the way that she was losing she could not live much longer. She is living now, ten months later, and in better health than she was before the operation, though not able to be out. She was fed through the tube several weeks, although she insisted on pulling the tube out. I replaced it several times, but finally I was out of town for awhile, and the doctor in charge got tired of replacing it, and left it out. The whole tumor seems to me to be smaller now, showing the effect of lessened irritation. The main point I want to lay stress upon is the early diagnosis.

A Novel Method of Abdominal Drainage.

At the recent meeting of the American Association of Obstetricians and Gynecologists, Frank F. Simpson, in a paper entitled "Some Contraindications to Intraperitoneal Use of Normal Salt Solution after Abdominal Section," proposes a method which makes dependent drainage easy.

That drainage is far more desirable and satisfactory when assisted by gravitation cannot be denied; still, if it is to be secured in the manner suggested it will be a startling innovation, to say the least.

His plan is to pass a plain metallic tube through the abdominal incision down to the most dependent part of the pelvic floor, where it is to be held in accurate contact with the pelvic wall. A sharp spear-shaped piece of metal, carrying a detachable drainage canal at its blunt end, can be quickly thrust through this tube and the pelvic wall without fear of damage, and thus a button-hole made for drainage purposes in the most dependent portion of the abdominal cavity. So far, it seems, the autor has not carried out his plan upon any human being, but the inference is plain.—*St. Louis Medical Review.*

Reporter—"I have been asigned to interview a number of noted men on the subject of books which have most influenced them."

Author—"I understand."

"What book has been to you the greatest stimulus to mental activity?"

"An empty pocket-book."

RESTORATIVE.—A man dropped his wig on the street, and a boy who was following close behind the loser picked it up and handed it to him. "Thanks, my boy," said the owner of the wig. "You are the first genuine hair restorer I have ever seen."

Formalin in the Treatment of Seborrhœa, Hyperidrosis and Carcinoma.

At the Twenty-fourth Annual Meeting of the American Dermatological Association, held at Washington, May 1, 2 and 3, 1900, Dr. A. Ravogli, of Cincinnati, recommended in cases of seborrhœa oleosa and of hyperidrosis a mixture with a basis of formaldehyde in the following proportions:

R	Formalin,	3 i—ii
	Glycerin,	℥ ii
	Aq. Coloniens, Alcohol rect.	aa. ℥ iii
M		

He stated that at present he has two cases of hyperidrosis of the scalp under observation; the excessive perspiration has diminished a great deal and the loss of hair has been considerably reduced.

Dr. Ravogli, during the Discussion on Malignant Diseases of the Skin, said:

As to the distinction between the carcinomata, we need a simple one which will give at the outset an idea of the kind of carcinoma we have to deal with. It makes no difference whether the cells go down in one way or the other, are lobular or tubular, nor is it important whether, histologically, the cells are small cells or squamous. What is interesting for us is the distinction between the superficial or lobular, and the nodular. In the former we have a true superficial cancer which may remain for fifteen years without giving any trouble. When we have the nodular tumor, there is infiltration of the epithelial cells which come from the depth; we see that the papillary layer is entirely preserved. There is nothing wrong with the upper portion of the dermis and of the epidermis; but we find an infiltration underneath, in the deep layers of the dermis and in the lymphatic spaces. This carcinoma kills a man in two or three years. I remember a man who had carcinoma of the penis. It was no larger than a wart, an amputation of the penis was performed, the wound healed up in a few days, and in about twenty days the patient was able to leave the hospital. Four or five weeks afterward this poor man came and began to show nodules of carcinoma in the groin; and he became entirely covered with these carcinomatous nodules, and died in a short time. This clinical distinction in regard to the carcinomata I regard as very important.

In regard to the treatment, I beg that you will try Formalin. I have obtained splendid results in five or six cases. It is used at the full strength of the commercial article—40 per cent. Sometimes, if it is a small carcinoma it is necessary to cocainize the surface, because it causes sharp pain. The following day the surface gets red and swollen, and then the carcinomatous surface grows yellowish in color and sloughs off. With two or three applications I have obtained very good results.

In some cases I make a paste of rice powder, oxide of zinc and Formalin. I protect the normal skin with a piece of plaster, leaving the carcinomatous surface exposed; then with the spatula I cover this surface with the paste. Two applications have given splendid results, so much so that the carcinoma sloughed off and entirely disappeared.—*Journal of Cutaneous and Genito-Urinary Diseases, Aug. 1900.*

Worthy and Seasonable.

When the temperature of the body is above normal, conditions are especially favorable for germ development. It is a matter of every day observation that a simple laxative is often sufficient to relieve the most threatening situation and prevent the most serious complications. To reduce fever, quiet pain, and at the same time administer a gentle laxative and strong tonic is to accomplish a great deal with a single tablet. We refer to Laxative Antikamnia & Quinine Tablets (a tonic-laxative, analgestic and antipyretic) each tablet containing:

Cascarin,	gr. 1-8
Aloin,	gr. 1-32
Ext. Belladonna,	gr. 1-32
Podophyllin,	gr. 1-32
Quin. Bisulph,	gr. 1-34
Antikamnia,	gr. 3

Among the many diseases and affections which call for such a combination, we might mention la grippe, influenza, coryza, coughs and colds, chills and fever, and malaria with its general discomfort and great debility.

We would especially call attention to the wide use of this tablet in chronic or semi-chronic diseases.

Patent Medicine Man—I don't know whether to publish this testimonial or not.

His Partner—What is it?

Patent Medicine Man (reading)—Your cough syrup has been used with wonderful success for our boy, aged ten. He confesses that he would rather go to school any time than take your preparation.—*Puck.*

Whipped Cream.—"I see that the cream of the British army is now in the Transvaal." "Yes, the whipped cream."—*Life.*

THE

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SUBSCRIPTION. $2-50 PER YEAR,

THE NEW CENTURY.

With the new year we begin a new century. The old has been a century of great advancement, the new has the promise of still greater. The discovery of anesthesia and the germ theory of disease stand out in bold relief among the many worthy things of the past one hundred years. The tide of civilization has ebbed and flowed, but the general tendency has been always upward. We can hardly conceive of two discoveries of the new century that will confer a greater blessing on suffering humanity than anesthesia and asepsis, but doubtless many of us will live to see them. In some obscure place there is now an obscure child with this destiny upon its brow. Consumption and cancer will be read of only in the history of the past and men will wonder at the simplicity of their cure. In the next century we will all learn better how to live. We will be cleaner in our lives, morally as well as physically. As dirt breeds disease, so envy and malice prey upon and destroy the delicate fabric of the soul. Perhaps there will be a revolution in the method of building dwelling houses and in the means of keeping them clean. The streets of our cities will be dustless, and the country will be without the mosquito. Let us dream that in the century people will learn to pay their doctor bill. That a call will be equivalent to a dollar, that the banks will take the physician's visiting list as collateral for a liberal loan. Let us dream that the doctor will be appreciated for his merit and ability and not for the kind of clothes he wears or for the horses he drives or for the style he keeps up at home. Let us dream that newspapers throughout the country will throw out their quack advertisements, that preachers will stop writing testimonials, that editors will write to foster and encourage all that is genuine and true in medicine. Let us dream that doctors will stop quarreling, that they will step down from their pride and self-conceit and mingle together as brothers with a common purpose and a single hope. These are strange things, but strange things have happened in the past and a hundred years is plenty of time to do all these things and more.

CHAS. J. O'HAGAN, M.D.

The profession of the State has suffered a grievous loss in the death of Dr. O'Hagan, of Greenville. He was wrapped up in the progress and stability of the State Society. A meeting was not complete unless Dr. O'Hagan was there. At Tarboro he was called home during the progress of the meeting and things seemed to drag along while he was away. He was always ready to discuss any paper on any subject and his remarks were always profitable and pleasing. There was always a circle of sunshine around him; he enlivened any topic and was a most enjoyable companion. To the younger members of the Society he was especially kind and for them he was always considerate. Among the older members he was an honored friend, but to the new recruit he was a sympathizing helper.

Every place of honor within the gift of the Society has been his, not from any wire-pulling, but as an expression of esteem. He was one of the old war-time members, as he joined in 1860, in 1868 he was elected Vice-President, in 1870 he was President; from 1872 to 1878 he served as President of the Board of Medical Examiners, and in 1898 he was made an Honorary Fellow of the Society. For a number of years he has been a most influential member of the State Board of Health, and at the conjoint meeting last year he acted as President.

He was well versed in all the literature of the times and was remarkable for his ready speech. Whenever some man fought shy of his duty in regard to a public speech, Dr. O'Hagan was called upon to take his place, and without any preparation he always did better than the man who was prepared if he had been on hand.

The old men are passing away and the young men must catch the inspiration of their lives and take their places. We hope the mantle of his warm-heartedness, his fidelity to duty, his brotherly kindness, will fall upon some who are left, and may we feel the influence of his life for all the years to come.

Wanted Badly.—A good paper knife in the office of the Medico-Legal Journal, to trim the edges of this well-known and valuable periodical.

APOMORPHINE AS A HYPNOTIC.

We have always thought that apomorphine would do anything else except make a person sleep, unless it was from sheer disgust, but lately several men have testified to its sleep producing qualities.

In a case of delirium tremens, Lewis used a small dose of apomorphine for the purpose of evacuating the stomach and he was surprised to notice its marked sedative effect upon the patient.

Douglas has also called attention to this hypnotic power in certain doses.

As apomorphine is a derivative of morphine it might be supposed that its sedative action was due to some contamination with the alkaloids of opium, but the hypnotic dose of apomorphine is so small, 1-50 to 1-20 of a grain, that this supposition becomes unreasonable. Even if the entire dose was pure morphine it would be incapable of producing such results.

The usual dose of apomorphine for this purpose is 1-30 of a grain given hypodermically, the patient being undressed and in bed. This is important, for if the patient stirs around much after receiving the dose vomiting is likely to occur. In persons very susceptible to the emetic effect of the drug, 1-50 of a grain may be given. If no hypnotic effect is noticed within half an hour the dose is repeated. The direct hypnotic effect is said to last for one to two hours, though the patient may sleep all night. The advantages of apomorphine as a hypnotic are, no disagreeable after-effects and no danger of drug habit.

It has been found to be useful in delirium tremens, and in the insomnia due to the withdrawal of morphine in persons accustomed to its use.

EXERCISE.

Physical culture is quite a fashion in certain places just now. Men swing 5 pound dumb-bells for half an hour every morning, ladies pull the most delicate weights with an electric battery attached for an hour on the stretch. Every man can be his own Sandow for $1.50 per week. And exercise is beneficial to the body and to the mind. Wrinkles are smoothed away and care and worry pass off in the perspiration. But a close room is a poor place to work the body. The mind can be developed in a stuffy library, but the body must be exercised in the open air. This is where so much physical culture falls down. The gymnasium is usually placed in the basement where the light is poor and the air bad and all the good effect of the exercise is lost in the surroundings. When the bicycle came it was a fair child of promise, but the scorcher singed its hair before the milk teeth were well out and premature old age shriveled up its limbs. So that bicycling for pleasure and health is suffering from hypertrophy of the prostate and other diseases of senility. But there is a way of taking exercise in the open air, if not very fashionable, still very good and old fashioned.

Walking is at once an exerciser for the lungs as well as for the liver. All the muscles are brought into play and the whole body responds to the stimulation. For the man who is using his mind too much, sticking too close to his work in a badly ventilated office, there is nothing so helpful as walking. Not a whole day's hunting on Thanksgiving or Christmas, which simply tires a man out, but moderate every day walking. It should be measured in certain doses. The man who works indoors all day and then rides home to his dinner and takes a ride out in the country for exercise should send his carriage to the livery stable for awhile. He should begin with a ten minutes walk in the morning, the next day ten minutes in the morning and ten in the afternoon; this is gradually increased by ten minutes each day until he is walking an hour and a half morning and evening. By this time the mind will be clear and the sleep refreshing. Consumptives or those who take cold easily should go out and swing their legs in the air instead of swinging their arms in a close room.

There is only one serious drawback to this form of exercise and that is its cost. It is inexpensive and for that reason some people can never come to endure it. If it only cost two dollars a mile people would have it or burst their jugular vein in the attempt. In spite of its cheapness, however, walking in the open air is the ideal form of exercise, especially for the man of middle life, and older.

THE OBSTETRICAL BILL.

Of all the well-paid men in the profession the obstetrician should be easily the first.

Coming events cast their shadows before and the happy father has at least six months to prepare for the coming of the baby. He should spend some of this time in laying by a sufficient amount to pay the doctor. A physician was asked just after a successful delivery if there were any birth-marks on the baby. Yes, he replied, C. O. D. In fact all babies should have this mark upon them and the package should be held until the cash is put up.

There may be some sense or reason in

putting off a bill for attendance during fever or pneumonia or for an operation for appendicitis as these things come on without warning and there is little time to get ready for them. But an obstetrical bill should be paid upon the spot and there is absolutely no excuse for a man doing otherwise. Even the man who is making small wages can save up enough in six months to make the tired doctor look happy and warm up his cold bones as he crawls back into bed.

The obstetrician is usually called up at 2 A. M. on a cold, rainy night with the wind from the north-east and he must drive over muddy roads and through treacherous swamp until he comes to the place of revelry by night. If in town, his horse is put up, the street cars are not running, and the hack stand is half-mile away, so he walks and wonders why he did not stay down on the farm and worry with the cotton crop. When he comes to the house of pain he must pull himself together, think of two things at the same time, direct and encourage, work and hope. And for all this he gets scolding from the grandmother, and is freely criticised by the old ladies of the neighborhood, and may be a load of cotton seed in the fall.

The obstetrical bill should be put in a class by itself and this the doctors must do for themselves. Have a distinct understanding with your patrons that this kind of work is cash, strictly cash with no rebate for good weather. We will not be able to do this all at once, but if we will begin all at once it can soon be done. Frequently we are spoken to several months in advance and this is a good time to state that such work cannot be booked. Of course, in obstetrics as in all other departments of medi cine, we will meet with those who have nothing to save and nothing to pay and they will be treated with that charity which is the common heritage of the physician in town or country.

The man who is making a good living, the man who is in moderate circumstances, and the man who has money to throw at the birds, should have the cash ready when the baby squalls.

INFANT MORTALITY.

Nearly one-half the men and women in the country die while they are children. Twenty-five per cent. die before the end of the first year, and forty per cent. die before the end of five years. This terrible mortality rate could be reduced some at least. Only the most virulent epidemics of plague or cholera have a higher death-rate than childhood.

Infancy can not be called a disease yet the mortality is four times that of typhoid fever. About one-fourth of all the deaths under one year are caused by diseases of the respiratory organs and these diseases in their turn are caused by undue exposure to cold and wet. Defective clothing, improper bathing and sudden changes of temperature have a very bad effect upon a young child. Among the poor the baby sleeps in the bed with the rest of the family where it is too hot, and during the day sits over a crack in the floor where it is too cold. In a short time it gets the snuffles, later on pneumonia. Among the well-to-do the babe is intrusted to the tender care of a young negro girl, while the mother goes out calling, and if any thing it suffers more than its poverty stricken brother.

The diseases peculiar to infancy and childhood, as whooping cough, measles, scarlet fever and diphtheria, cause a great number of deaths and many of these could be avoided until later in life when they are not so dangerous if strict isolation was better carried out.

But worse than all are the diseases of the alimentary canal, as they cause 40 per cent. of all deaths occurring during the first year of life. And to think that 90 per cent. of these cases are caused by improper feeding and bad air! Improper feeding is simply another name for dirty feeding, and bad air means darkness and lack of ventilation. These causes operate with much greater force during the summer months, but the winter is as good a time to talk about it as any, for I take it that if all the paper that has been wasted in writing of infant feeding had been collected in one place and sold, the proceeds would support a dozen cooking schools for mothers.

People do not try to murder their children by improper feeding, they do it without trying, but they do it through ignorance. They are careless and indifferent, and so when the child gets sick they call in a doctor and he leaves some calomel and soda, comes back the next day and leaves some bismuth; the next day he leaves some pepsin, and then he starts over again with the calomel. Then is the time to talk of infant feeding and to talk plainly.

Instead of writing a long paper for the medical society tell all you know to the parents. Of course, some children are born to die, as those with hydrocephalus, spina bifida, cyanosis and certain malformations, and for these we can do little or nothing, but they form an exceedingly small per cent. of those who die. The larger num-

ber of cases we can help by medicine partly, mostly by advice and counsel, simple cleanliness and plain common sense.

GONORRHEAL ARTHRITIS.

Many cases of gonorrheal joint diseases are diagnosed rheumatism and treated accordingly.

The specific nature of joint swelling, especially in young men, should always be kept in mind and the examination made with this possible cause in view. The joint affections of gonorrhea may be placed in two classes, those with effusion and those with little or no effusion. In the first class, the inflammation is limited to the superficial layers of the synovial membrane and the effusion may be serous, sero-fibrinous or purulent. The latter class is the so-called phlegmonous variety in which the deeper layers of the membrane are affected with extra-articular edema and little or no effusion into the cavity itself.

The edema around the joint may mislead us unless we are careful and thorough in our examination, as it may simulate effusion very closely. In the cases of serous effusion within the joint, the arthritis is not very severe, there is very little pain and no fever, and recovery is prompt with no impairment of the joint. But in cases of sero-fibrinous or purulent effusion the symptoms are very intense, extreme pain and fever, and ankylosis is a not infrequent result. In the phlegmonous form the danger to the joint is extreme and disorganization may occur early.

So then it becomes a matter of importance to watch the joints closely during an attack of specific urethritis both in men and women. Any appearance of pain or swelling about a joint during gonorrhea are indications for absolute rest in bed with energetic treatment. The surgical treatment of these cases are important, aspiration should be done if the effusion is sterile, if the gonococcus is found the joint should be opened and irrigated with bichloride. A tight bandage should be applied above the joint in the latter case to prevent absorption of the mercury.

If the pus is not very virulent the joint may be closed after free irrigation otherwise it can be left open without drainage.

If the surgical treatment of these swellings is carried out early enough perfect results will follow and the joint will be left as useful as ever. If done late or not at all, restricted motion or ankylosis is almost certain.

The knee, the ankle, and the wrist are the joints most usually affected. A number of joints may be affected at the same time and the involvement may be slight in each one. It is well to be able to recognize the gonococcus in the effusion, but the clinical signs are safe guides. If there is much pain and fever, it is safe to say that infection has taken place and arthrotomy with irrigation are indicated. If the pain is mild with no fever, it is proper to aspirate. In all cases a microscopical examination is of great help in determining the plan of treatment, but it should be used along with the clinical signs and constitutional symptoms.

It is well to remember that the joints may become involved in chronic or even seemingly cured cases years after the primary infection as well as during an acute attack.

CASTOR OIL IN NEURALGIA.

A number of writers have called attention, during the past year, to the good effects of castor oil in neuralgia. Ochsner was the first to use it in this country, though it is said to have been first used by Gussenbauer, of Vienna, in 1886. He had a patient being prepared for an operation for neuralgia. He was given castor oil and cascara to clear out the bowels and the patient was so much improved the next day that the operation was postponed and the treatment continued. The patient recovered entirely without the operation. Since Ochsner's report, Moyer, Parks, Knotts, and others have reported cases in which the remedy had a most happy effect. It is to be hoped that a number of physicians will try this simple remedy.

The action of castor oil in neuralgia seems to be apart from its cathartic effect as the use of other cathartics are not attended with the same results, and the good effect of the oil is secured without producing purging. Castor oil is such an old-fashioned, simple remedy, with a very disagreeable taste, that people are not very willing to take it, but a patient suffering with severe neuralgia is usually willing to take anything holding out a promise of relief.

It may be given in capsules, which is a rather expensive way, or in a mixture.

According to Merck the following makes a palatable preparation :

Saccharine,	gr. 12
Ol. gaultheriæ,	♏ 20
Alcohol,	ʒ 4
Ol. ricini,	o 1

In the case reported by Knotts the following mixture was used :

Ol. ricini,	ʒ 3
Glycerine,	ʒ 3
Tinc. opii camph.,	ʒ 6

M. Sig. Teaspoonful at bed-time.

The patient took this every night for two months during which time she only experienced one slight attack though she had suffered for years under many other forms of treatment. In most cases the daily dose should be more than in this case.

Moyer says from one to two ounces should be taken every day, and he thinks it can be best taken in a glass of effervescent ale. No matter what the method of administration is the patient should get at least one ounce daily, and it is more or less immaterial just how it acts so long as it relieves the suffering of the patient.

In your next case leave off morphine and the coal tar preparations and put the patient on a course of castor oil

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The meeting of the Pan-American Medical Congress, which was to have been held in Havana during Christmas week, has been postponed until February 5th. This was done on account of the presence of yellow fever in and around Havana.

The epidemic is not at all severe and is well under control, but it was feared that some people would be scared away. By the first week in February even these few mild cases will entirely disappear and the capital of a new country will appeal to the travelling appetite with irresistable force. At present there is no more interesting place in the world to visit than Havana, and the meeting of the Pan-American Congress is worth a great deal on its own account. We notice that a prominent railroad is offering transportation at half fare for the round trip. It is to be hoped that a large delegation will go from the United States, and we feel sure that all will enjoy the trip and the meeting.

THE Kansas City Medical Index-Lancet came in a beautiful new dress for Christmas. The clothes were made out of pink lamp-shade paper, and the other journals looked like thirty cents in comparison. Brother Punton has evidently kicked a goal.

BOOK REVIEWS

The Treatment of Fractures. By W. L. Estes, A.M., M.D., Director and Physician and Surgeon-in-Chief of St. Luke's Hospital, South Bethlehem, Pa. With Numerous Original Illustrations. New York: International Journal of Surgery Co. 1900. Price $2·00.

Fractures are liable to happen most any day and calls to such cases come in with great haste and the general practitioner needs a handy work for ready reference. Such a work is Estes' Treatment of Fractures.

The author has had extensive connections with railroad and mining industries and is enabled to speak from a large experience in this class of cases. The theoretical consideration of fractures is largely omitted and the practical part of the treatment is emphasized. Physicians in the country and smaller towns will find this book a great help to them in the management of all kinds of fractures. The work is well printed and fully illustrated with many original cuts.

A Manual of Surgical Treatment. By W. Watson Cheyne, M.B., F.R.C.S., F.R.S., Professor of Surgery in King's College, London, Surgeon to King's College Hospital, etc., and F. F. Burghard, M.D., and M.S. (Lond.), F. R.C.S., Teacher of Practical Surgery in King's College, London, Surgeon to King's College Hospital, etc. In seven imperial octavo volumes, with illustrations. Volume IV., 383 pages with 338 illustrations. Cloth, $3.75, net. Lea Brothers & Co., Philadelphia and New York, 1900.

Our readers are doubtless already well acquainted with the first three volumes of this practical work on Surgery. The fourth voume is a continuation of the authoritative treatment of the other three.

This volume considers, dislocations, sprains and the various wounds and diseases of the joints. This part of surgery the general practitioner comes in daily contact with and he is forced to have ready at all times a simple and up-to-date method of treament. The most simple and successful manner of reducing dislocation is well illustrated and the surgeon who has this work will be enabled to manage this class of cases with the very best results.

The surgical affections of the spine are considered in detail and a most helpful chapter on Home Exercises in Scoliosis is appended. This chapter is well illustrated showing the proper exercises in disease of the spine which may be carried out at home. The work is eminently practical throughout and all the methods of treatment are those that have been fully tried and tested by the authors and the practitioner cannot err in following the directions laid down with fidelity.

The book is bound uniform with the other volumes and a very handy index is found at the end which enables the reader to use the volume as a handy reference book with great ease.

Obstetric Clinic. By Denslow Lewis, Ph. C., M.D. Professor of Gynecology in the Chicago Policlinic ; President of the Attending Staff of Cook County Hospital, Chicago; President of the Chicago Medical Examiners' Association; Vice-President of the Illinois State Medical Society; Ex-President of the Physicians' Club of Chicago; Consulting Obstetrician to the Florence Nightingale Home; Senior Gynecologist and Obstetrician to the Lakeside Hospital, Chicago, Late Special Commissioner from the Illinois State Board of Health and the Health Department of Chicago for the Investigation of Municipal Sanitation in European Cities. Octavo, 640 pages. Price, $3.00. E. H. Colegrove, 65 Randolph St., Chicago.

This book contains a series of thirty-nine clinical lectures on practical obstetrics delivered to students and practitioners in Cook County Hospital, Chicago, together with remarks on criminal abortion, infanticide, illegitimacy, the restriction of venereal disease, the regulation of prostitution and other medico-sociologic topics. It is the most practical work we have seen in some time and as such it will prove invaluable to the student and young practitioner. Even those who are well versed in the literature of the subject and have practiced obstetrics for years will find much help from this book in reducing their knowledge to the proper form for everyday use.

Many of us start out with quite a lot of theoretical information about obstetrics which we find difficult to utilize in actual experience and a careful reading of these lectures will enable us to square our opinions with the practical work.

The book is well printed and bound for so small a price and is worthy of a most liberal patronage.

American Text-Book of Physiology. Edited by William H. Howell, Ph. D., M.D., Professor of Physiology in Johns Hopkins University. Vol. II, Royal Octavo, of nearly 600 pages, fully illustrated. Cloth, $3.00 net; sheep or half-morocco, $3.75 net. Philadelphia and London; W. B. Saunders & Co., 1900.

Even in the short time that has elapsed since the first edition of this work there has been much progress in Physiology, and in this edition the book has been thoroughly revised to keep pace with this progress. The result is that the American Text-Book now represents the most modern work on Physiology. Statements and theories that have been shown to be improbable have been eliminated, and the new facts discovered and the newer points of view have been incorporated.

The chapter upon the Central Nervous System has been entirely rewritten in the light of the latest knowledge, with the intention of rendering this important branch of the subject suitable to the needs of students and practitioners. A section on Physical Chemistry forms a valuable addition, since these views are taking a large part in current discussion in physiological and medical literature.

The first edition of this work was pronounced to be the best exposition of the present status of the science of Physiology in the English language, and in its revised form the book will doubtless remain the leading work on Physiology for students and practitioners. The subjects comprised in this volume are: Muscle and Nerves; Central Nervous System; Special Senses; Special Muscular Mechanisms, and Reproduction.

We noticed the first volume of this excellent work in our October issue for 1900 and this second volume is fully up to the standard set by the other.

Among the contributors to this volume are Bowditch, of Harvard, Donaldson of Chicago; Lee of Columbia; Lombard, of Michigan University; and Sewall, of Denver

A Compend of Diseases of the Skin, by Joy F. Schamberg, A.B., M.D., Professor of Diseases of the Skin, Philadelphia Polyclinic and College for Graduates in Medicine; Fellow of the College of Physicians of Philadelphia; Second Edition; Revised and Enlarged with 105 illustrations; Cloth, 80c; Philadelphia; P. Blakiston's Son & Co.; 1012 Walnut St. 1900.

In the second edition of this work the text has been carefully revised and a number of additions made which increase the value of the book. Rare diseases of the skin have been omitted, but the more common forms of skin affections are considered in detail.

As a rapid reference work and key to the study of dermatology, this book commends itself to the practitioner as well as to the student.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences; Edited by Hobert Amory Hare, M.D., assisted by H. R. M. Landis, M.D.. Volume IV. December, 1900. Cloth, 428 pages, $2.50. Lea Brothers & Co., Philadelphia and New York, 1900

This work has become familiar to numbers of physicians throughout the country and needs no general description. The present volume is worthy of its place as the closing number of the closing century. The last one hundred years has been crowded

with improvements and discoveries and in no department of learning has it been more noteworthy than in medicine. This fourth volume of Progressive Medicine for 1900 brings clearly before our eyes some of these advances. The contributors to this volume are Henry B. Baker, William T. Belfield, Joseph C. Bloodgood, John Rose Bradford, Albert P. Brubaker, Max Einhorn, E. Q. Thornton.

The contents include Diseases of the Digestive Tract and allied Organs, the Liver, Pancreas and Peritoneum by Einhorn; Genito-Uurinary Diseases by Belfield; Fractures, Dislocations, Amputations, Surgery of the Extremities and Orthopedics by Henry Bloodgood; Diseases of the Kidneys by Bradford; Physiology by Brubaker; Hygiene by Baker, Practical Therapeutic Referendum by Thornton.

The possessor of this work has all that is worth preserving of current literature in a convenient form for ready reference.

Chemistry and Physics. A manual for Students and Practitioners. By Walton Martin, Ph. B., M.D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons, Columbia University, New York, and Wm. H. Rockwell, Jr., M D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons, Columbia University, New York. Cloth, 374 pages, illustrated with 137 engravings. Lea Brothers & Co., Philadelphia and New York.

Medical chemistry and Physics are very important to the student and practitioner, but the trouble with most text-book on this subject is that they go deeply into the analytical part of the question. This work will be found to be the very thing for the student who desires to know everything that will help him in his everyday work.

This is one of Lea's Series of Pocket Text-Books and is edited by Dr. Gallaudet.

About one-half the matter is concerned with chemistry, inorganic and organic, and the other half with Physics, including matter, sound, heat, light, magnetism, electricity, meteorology and climatology. All the subjects are handled in a very practical way and the book will be very valuable to the practitioner as well as to the student,

King's American Dispensary. New Edition. Entirely rewritten and enlarged, by Harvey W. Felter, M.D., Adjunct Professor of Chemistry in the Eclectic Medical Institute, Cincinnati, O.; Co-editor Locke's Materia-Medica and Therapeutics; Ex-President Ohio State Eclectic Medical Association, etc., etc., and John Uri Lloyd, Ph. M., Professor of Chemistry and Pharmacy in the Eclectic Medical Institute, Cincinnati, O.; formerly Professor of Pharmacy in the Cincinnati College of Pharmacy: Ex-President of the American Pharmaceutical Association; Author of the Chemistry of Medicines; Drugs and Medicines of North America; Etidorpha, etc., etc. Two volume edition, royal octavo, containing together 2,284 pages, including complete Indices. Cloth, $4.50 per volume, post-paid. Sheep, $5.00 per volume, post-paid. The Ohio Valley Company, Publishers. Cincinnati, O.

This is the stardard dispensatory of the Eclectic School. First issued in 1854, there have been 18 editions and three revisions up to the present time. The original matter by Prof. King, which characterized the previous editions has been retained by its present authors and it has been greatly added to and the old text entirely rewritten.

The work is well printed and illustrated by a number of cuts of medicinal plants. The different drugs are alphabetically arranged in the body of the book and at the same time a complete index can be found at the back so that reference to any drug or question can be had in a moment.

Proceedings of the Association of Military Surgeons of the United States; Eighth Annual Meeting held at Kansas City Sept. 27, 28 and 29, 1899. Columbus, Ohio. The Berlin Printing Company, 1900.

While this is a comparatively young organization it manages to get out a very creditable volume of proceedings. The book contains nearly 400 pages in good binding in which we find a number of good papers of a military flavor. Among the papers of general interest we notice, Woods, on the Radical Cure of Hermia; La Gorde, on Gunshot Wounds; Poison Ivy and its Kindred by Harvard; Suppuration of the Middle Ear by Robertson; Epithelioma of Tongue treated with Formaldehyde, by Woods; Climate and Tuberculosis by Porter.

Transactions of the New Hampshire Medical Society; One Hundred and Ninth Annual Meeting, held at Concord May 31 and June 1, 1900. Ira C. Evans, Printer, 12 School St. Concord, N. H.. 1900.

The New Hampshire Society is one of the oldest State Associations in the country. Its deliberations are ripe with all the fruits of long experience. The volume before us bears testimony to the excellence of the work done by this Society. The book is well printed and bound and contains a number of first-class papers. Richardson on Abdominal Tumors, Colpoceliotomy by Cumston, and others of equal merit were presented. Dr. Conn has been Secretary

for some time and does his work with rare skill and discrimination.

The next meeting will be held in Concord May 16 and 17, 1900, under the Presidency of Dr. William T. Smith, of Hanover.

Life and Letters of Thomas Henry Huxley, by his son, Leonard Huxley, in two volumes, illustrated, New York. D. Appleton & Co., 1900.

In this work we have a picture of the man himself, of his aims in the many struggles in which he was engaged, of his character and temperament and the circumstances under which his various works were begun and completed. In a very graphic way his letters tell the story of his life and the inner man is revealed for our study. His life from the year of his birth, 1825, to 1895, is given in a most interesting manner. The author does not weary us with the constant mention of his relation to the subject of his work, but at all times keeps the man before our view. As a study of the inner mechanism of a life-work these volumes are worthy of a place in every library. Man is a proper study for all mankind and the study of a great man is of great value to students. Huxley was an Englishman by birth, but his work gave him a place among the citizens of the world. He was very much read in America and delivered some of his most notable lectures in this country.

This American edition of his life will meet with a cordial reception.

These volumes are gotten out in Appleton's best style and will prove a valuable addition to any man's library.

The Master-Christian. By Marie Correlli Author of "A Romance of Two Worlds," "Barabbas," "The Sorrows of Satan." Cloth, 600 pages. $1.50. New York. Dodd, Mead & Co. 1900.

This work is dedicated to all those churches who quarrel in the name of Christ and if they will appreciate the honor it should have a large sale. Geo. W. Peck dedicated one of his books to the authors of "Beautiful Snow" in this way hoping to reach a multitude of people. Marie Corelli is equally comprehensive in her generosity.

This is her latest and longest work and she holds the interest to the very end. Religion is a most interesting subject in the hands of a good writer. The success of "Robert Elsemere" and "The Christian" was assured from the start and the "Master-Christian" while in many respects very different from these books will meet with the same generous reception. Miss Corelli tackles orthodoxy for a fall and in her characteristic way she makes it very interesting.

The conformists and non-conformists are set over against each other and the contrast as she sees it is very striking.

McLoughlin and Old Oregon. A Chronicle, by Eva Emery Dye. 12 mo. Gilt top, with frontispiece, 382 pages, $1.25. A. C. McClurg & Co., Chicago

This is a most interesting history of Oregon from 1832 to 1857 and while it is all true, it is more romantic than many of the novels of the day.

Just how our great Western coasts were made a part of the Union is told with thrilling interest. Dr. John McLoughlin, the Governor of the Hudson's Bay Company west of the Rocky Mountains, is the hero of the tale. His influence was great among the settlers of this wild country and his fatherly interest helped on the final result though it brought down upon him the displeasure of the Hudson's Bay Company.

The author brings before us a picture of the pioneers, trappers and Indians as lifelike as any of Cooper's Leather-Stocking tales. The work is valuable as history, more intesting than a novel and has a vividness which comes only from reality and truth.

The book is hansomely printed and bound and should have a large sale.

A Little Tour in France. By Henry James, with illustrations, by Joseph Pennell. Cloth, 350 pages, Boston and New York. Houghton, Mifflin & Co., 1900.

The cities of France are full of inspiration to any writer and the author of this volume has caught the delicate spirit on the point of his pen. A genuine artist must write of things in France, anyone else will make a miserable botch of it. It is important to see clearly, but it is absolutely necessary to feel. In this little tour the writer gives us a feeling sketch of this emotional country. Enough of old history to flavor well the scenes of the present, but not enough to clog the senses. More than sixty full page illustrations are interwoven with the text and form a part of it as the writer and the illustrator are both artists. The chapters are clear because we see the pictures and the pictures are full of life because we have read the chapters. The mechanical part is the work of the Riverside Press of Cambridge which is sufficiently descriptive of its excellence.

We are sure that anyone will enjoy a little tour in France, there is no fatigue or dullness in all the way from Tours to Dijon.

The Weird Orient. Nine Mystic Tales. By Henry Iliowizi, author of "In the Pale," "Jewish Dreams and Realities." Cloth. Illustrated, 360 pages. Philadelphia. Henry T. Coates & Co. 1900.

According to the publishers, Rabbi Iliowizi is a Hebrew of pure lineage, the son of a zealous member of the Chassidim, a Kabbalistic sect numbering over half a million members in Russia, Roumania and Gallicia. Well educated, he has written principally to his own race and is widely known among the Jews by several works. In the present work, written for a larger audience, he has given us a series of Eastern tales. Weird and mysterious of absorbing interest in which the heart and mind of the East are given in the language of the West. Sheddad's Palace of Irem and the Crœsus of Yemen are peculiarly interesting. How Solomon built the Temple is told in one of the chapters in the writer's best style. These fascinating tales will be widely read, as they appeal to every class of readers. The publishers have gotten them out in most elegant style so that the book is pleasing to the eye and satisfying to the taste.

Twenty Years in Europe. A Consul-General's Memories of Noted People, with letters from Gen. W. T. Sherman, by S. H. M. Byers, U. S. Consul-General to Switzerland and Italy. Cloth, 320 pages. Profusely Illustrated. Chicago and New York. Rand, McNally & Company.

Some people attempt to write of the characteristics of a foreign people after a week's visit and as a rule they make a mess of it.

The author of this work waited somewhat longer and as a result he has given us a very readable book. As a consular officer he had unusual opportunities of seeing and hearing things of interest. There were stirring times in Europe from 1869 to 1889.

Two great wars took place, one great Empire was born, another became a republic and Italy became a free country. He gives us an insight into the character of the people during these stormy times. The guide-book narrative is suppressed and everything has the freshness of actual experiences.

The letters of Gen. Sherman are not very relevant, but the author shows a pardonable pride in making them fit in very well.

Travels in Tartary, Thibet and China by M. M. Gabet and Huc. Cloth, illustrated; 342 pages; Translated from the French, by W. Hozlitt, Chicago The Open Court Publishing Co., London Agents, Kegan Paul, French, Truebner & Co.

We are all interested in China and things Chinese at the present time and the second reprint edition of this well-known work is most timely. The writers speak from personal experience in this part of the country and the characteristic traits and peculiarities of the people are given with absolute truthfulness. For three years these two missionaries wandered over this country, dressed as Tartars they lived and talked with the people as though they were brothers and their adventures make more interesting reading than any novel.

They did not study the religious life of the people only but the people themselves in all the phases of human nature and the work can be read with genuine pleasure by anyone interested in strange people and their strange ways.

LITERARY NOTES.

The January "New" Lippincott.—Cyrus Townsend Brady's new novel is published—complete—in the January number of the "New" Lippincott. This is a Revolutionary Love Story, or, as the sub-title has it: "A Comedy of Cross Purposes in the Carolinas." The real title, "When Blades are Out and Love's Afield," fits the plot to perfection. "Blades" stands for the hot-headed young officers; and "Love" is represented by the two pretty, plucky North Carolina girls, whose nearest male relative is a staunch Tory, while their own sympathies lean towards the Colonies, and their lovers are on both sides of the fight. This combination of circumstances make things lively for the girls, and leaves no time for ennui. Exciting events follow each other in quick succession, and there is not a break in the interest of the tale from cover to cover. This must take first place in the list of Mr. Brady's novels.

Besides the Complete Novel by Cyrus Townsend Brady there are several notable short stories. "The Personal Equation: A Story of Cornell College, by James Gardner Sanderson, fulfils an editorial preparation of many months to publish a series of College Tales dealing with the principal Universities of America. With love and athletics, strong elements in these stories, they must appeal to every college student in the land, as well as to persons who like to keep in touch with the manner of doing things at the different colleges. A story of the University of Pennsylvania is announced for next month. Mr. Sanderson is an Alumnus of Cornell who enters into the spirit of his theme with fervor.

A. E. W. Mason, the popular English wri-

ter,contributes "The Trouble of Beaulieu," an amusing story of a tipsy Englishman who in searching for the Marquis of Salisbury. He is side-tracked by a long-suffering Colonel, whose wrath rises slowly but surely and expresses itself in a series of kicks which had a sobering effect upon his victim.

"Sarah Bernhardt in Her Teens," by Albert Schinz, relates some new and intimate gossip about the "Divine Sarah's" early life. Her manner of avenging an insult at school is partieularly characteristic.

Edwin L. Sabin's story, called "The Day of the President's Message," is a most pathetic one about a "Girl," a telegraph editor, and a railroad wreck.

Elliott Flower writes a good little horse story that raises a laugh against the embryo racing-man.

Apropos to celebrating the centenary of the founding of Washington as the capital of the United States, is Annie Hollingsworth Wharton's paper, called "Washington: A Predestined Capital." This is not a mere statement of facts, but includes gossip about social happenings of those times, and many names are mentioned which are familiar in the fashionable world to-day.

"Talks with Chinese Women," by Lily Howard,is an intimate conversation between an American lady and her Chinese maid. This reveals some interesting domestic Chinese customs.

Under the title "Old Clubs," Lucy Monroe decants upon the ways of clubs generally, and especially of those bizarre clubs which which abound in every large city in the United States. Tha article is both useful and diverting.

The January number of the "New" Lippincott sustains its reputation for verse above the average by publishing "Poverty," by Clinton Scollard; "Winter Dawn," by Albert Bigelow Paine; "Devotion," by Hildegarde Hawthorne; and "The Transient Stars," by Dora Read Goodale.

The January Forum contains twelve articles of unusual interest and merit. "The Liberal Party in England," by one of the most distinguished of English Liberals,who for very sufficient reasons, prefers to remain anonymous, is a worthy defence of the party from a partisan's viewpoint. Arthur P. Davis, the distinguished Hydrographer, of the Isthmian Canal Commission, contributes an article under the title, "Panama and Nicaragua Canals Compared," which, at this time,when the question is foremost in the American mind must prove absorbingly interesting to all who note the progress of Greater America. "The District of Columbia in its Centennial Year," an article following so closely the recent "Centennial Celebration" at the National Capital, is contributed by Henry B. F. Macfarland, President of the Board of Commissioners for the District of Columbia. Prescott F. Hall, the eminent Boston lawyer, writes of "New Problems of Immigration." "The New Congressional Apportionment," by Henry Gannett. Geographer of the United States Geological Survey, imparts much that is of value to political students, and the lay mind as well. "The Fall of Pekin," by Rev.Gilbert Reid, is a brief summary of the causes leading up up to the occupation of the Chinese Imperial city by the allied forces. The President of Hobart College, Robert Ellis Jones, contributes a forceful and rather startling articles under the caption, "Is the College Graduate Impracticable?" Hudson Maxim, the famous expert in, and inventor of, high explosives, writes of "Smokeless Cannon Powder in the Light of the Most Recent Discoveries." "A New Industry Brought by an Insect," is a highly entertaining and instructive article. by the famous Government entomologist, L. O. Howard. The article by Henry Loomis Nelson, the brilliant journalist, treats of "The Purpose of Civil Service Reform." "Max Muller and His Work" is a scholarly exposition of the great philologist and Orientalist and his life-labors, by Prof. A. V. Williams Jackson, of the faculty of Columbia University. Oscar Lovell Triggs, Professor of Literature in the University of Chicago, contributes a masterly article, entitled "A Century of American Poetry," that will be universally appreciated by all who are interested in the development of this branch of American literature. The January number fully maintains the high reputation The Forum has achieved amongst high-class periodicals.

The January number of the American Monthly Review of Reviews has a great variety and extraordinary alertness and timeliness, It happens to have several important and carefully written articles about people, prominent among which is to be mentioned a very brilliant review of President Gilman's administration at the Johns Hopkins University, contributed by Dr. Nicholas Murray Butler, of Columbia University, the foremost authority on educational work in the United States. There is a sketch of Mark Twain, apropos of his return to the United States, which gives a very convenient review and summary of his

long literary life. Sir John Tenniel, the great cartoonist of Punch, completes this month fifty years of continuous work upon that venerable and amusing London weekly, and Dr. Shaw, with some comments upon Tenniel's career and mothods as a cartoonist and draftsman, reproduces a considerable number of his most famous cartoons, including two or three of his Lincoln cartoons at the time of our Civil War. Dr. Samuel G. Smith, of St. Paul, contributes an appreciative character sketch of the late Senator Cushman K. Davis; and Mr. Murat Halstead, who had known Henry Villard for forty years, writes very interesting reminiscences of that distinguished railroad builder and financier. Mr. Lusk, an Australasian statesman, contributes an article upon the resources and prospects of a new Australian commonwealth, which begins its career on the 1st of January, while Mr. James B. Rodgers, who has studied the subject with great care, writes an illuminating article on "Friars, Filipinos, and Land," apropos of some of the most important problems we have to face in the Philippine Islands. A somewhat remarkable feature of this month's Review is a full list of the members of the Electoral College, who must meet on the 14th day of January and elect a President and Vice-President of the United States, in connection with which Dr. Shaw contributes some pages of comment upon the history and working of our peculiar method of selecting a President. In Massachusetts there is a public commission charged with the care of park reservations contributed by individuals to the commonwealth; and an extremely attractive illustrated article explaing the work of this commission is contributed by Mr. Sylvester Baxter. This number of the Review is fall of timely portraits and general illustrations and seems to contain about 140 or 150 pictures. The editor's department, entitled "The Progress of the World," is an exceptionally well-rounded review of public affairs at home and abroad, and the "Leading Articles of the Month," condensed from other periodicals, present many topics of especial moment.

Scribner's Magazine has many projects for the year 1901 and several of the most important have their beginning in the number for January, which has just been issued. In fiction, readers will welcome the half-dozen Amateur Cracksmen stories by E. W. Hornung, each of which is complete in itself; but the ingenious Raffles and his accomplice, Bunny, appear in all of the adventures. The one in this number is entitled "No Sinecure," and it is illustrated by F. C. Yohn, who will make the pictures for the whole series. Raffles has already taken his place among those distinguished characters in fiction which everybody knows about.

There will be five more articles on "Russia of To-day," by Henry Norman, M. P. The present issue describes a remantic journey in "Thc Caucasus," which Mr. Norman believes is the most attractive vacation trip in the world. The illustrations show the picturesque features of the country.

Thomas F. Millard, who has been in five wars and whose articles on the Boer Army attracted so much attention in Scribner's last year, gives "A Comparison of the Armies in China," which is the best critical summary that has yet appeared of the excellences and defects of the various armies in the field, with particular application to the weaknesses revealed by the United States troops. Mr. Millard's criticisms have all the marks of fairness and wide experience, and will command the respect of military men.

The organized fight which is assuming important proportions against the disfiguring of landscapes by unsightly advertising is explained by Arthur Reed Kimbill, who has been the leader of the movement in the press of the country.

George Horton. recently U. S. Consul at Athens, and a writer of stories of Modern Greece which have attracted attention, contributes the first of two papers on "Modern Athens," giving the life of to-day with its remantic, historical background. The illustrations were made for Scribner's Magazine by Corwin Knapp Linson who took a journey to Athens for the purpose.

Rodin, the great French sculptor who had a special building for his works just outside the Paris Expositien grounds, is the subject of an elaborate critical paper by W. C. Brownwell. the well-known authority on French art. A number of the most important sculptors are shown in the illustrations.

Stephen Bonsal tells the story of a surprising adventure in "The Plague Ship" along the China coast; there is a short story of sentiment by Mary Tappan Wright entitled "A Day Together."

Henry James writes of the associations of Thackeray's "Dennis Duval" with Winchelsea and Rye.

Poems by Marguerite Merrington, Grace Ellery Channing, and Robert Bridges, and a description of "Two Beautiful Rooms in Japan," by W. B. Van Ingen conclude the number.

Boston's long-established weekly magazine, The Living Age, opens its two hundred and twenty-eighth volume with the number which bears date on the first Saturday of January. So long a period of continuous publication, running back fifty-seven years, presupposes qualities of enduring value in the magazine and a large measure of attachment on the part of its readers. The fact is that the editors of the magazine have been singularly successful in retaining the characteristics which gave the periodical its original hold upon the reading public, and at the same time broadening its scope anc introducing new elements of variety and timeliness. All the conditions of periodical publication have greatly changed since Mr. Littell established this magazine in 1844, but while other magazines have come and gone, the old "Living Age" has held its place and is even more indispensable today to alert and cultivated readers than it was half a century ago. It is still the only weekly magazine in its field: and its frequency of issue enables it to reproduce the most important articles from foreign, and from British magazines, reviews and literary weeklies, with a freshness impossible under other conditions. Literature, art, science, biography, travel, peotry, public affairs, and the best fiction in short and serial stories find a place in its well-stored pages: and there is not a single weekly number which does not contain something which intelligent readers of whatever special tastles would be poorer for missing. The magazine is published by The Living Age Company, Boston,

The Christmas number of Everybody's Magazine, published by John Wanamaker, contains the first installment of "Joscelyn Cheshire." A story of the American Revolution by a new writer, Mrs. Sara Beaumont Kennedy. The subject is an interesting one and the writer has a very pleasing style. The chief characters are born and bred in North Carolina and the writer gives us some charming glimpses of home-life in the Old North State during the war. Every North Carolinian should read this fascinating story. The magazine, as a whole, is well worthy of popular favor, and Wanamaker's name behind it is a sufficient guarantee of good things to follow. The price is one dollar a year, or ten cents a copy.

Ex-President Cleveland is writing for the Saturday Evening Post a series of strong articles which will appear in the magazine during the winter months. Some of these papers will deal with political affairs, and others with the personal problems of young men. They will be Mr. Cleveland's first utterances in any magazine on the questions of the day since he left the White House.

Mr. Cleveland's opening paper, which is to appear in The Saturday Evening Post of December 22, discusses in a masterly manner a most important phase of our national politics.

ABSTRACTS of the One Hundred Leading Articles of the Month.

Angina Due to Friedlander's Bacillus.

Emil Mayer, in the New York Medical Journal for December 22d, reports six cases of recrudescing angina due to Friedlander's bacillus, five from literature and one of his own.

After a careful study of these cases he concludes:

That anginas due to the bacillus of Friedlander may exist in a subacute or chronic form.

They occasion no distress, except perhaps in the beginning of the membranous deposit.

They may appear in membranous form, exfoliating and recurring.

In the chronic form treatment seems to be of no avail, the bacilli eventually becoming much less active, and the condition ceases by limitation.

They are probably much more frequent than the few recorded cases seem to indicate.

Asepsis and Antisepsis.

James E. Davis, in the International Journal of Surgery for December, gives us a very practical paper on this much discussed subject.

He concludes that inculcated principles of asepsis and antisepsis should precede the practice of the same.

A thorough mechanical cleansing with soap and hot water is the first and most important step towards asepsis.

The doctor of medicine should teach and demand the strict observance of cleanliness by assistants and associates.

Antiseptics must always be selected with due reference to their permeative power.

A detailed observance of asepsis should obtain in all medical work.

The most effectual and reliable agents for obtaining and preserving asepsis are boiling water, soap, alcohol, and bichloride of mercury.

Abdominal Relaxation and Gall Stones.

In the St. Louis Medical Review for December 15th, Jesse S. Myer writes of abdominal relaxation as a probable factor in the pathogenesis of gall stones. The following points are emphasized:

Visceral ptosis consequent upon abdominal relaxation and other causes results in stagnation of the bile through interfering with its normal expulsion.

The inactivity of the gall-bladder and stagnation of the bile predisposes the mucous membrane to infection.

This infection may be either hematogenic, through the portal system, etc., or an ascending infection from the duodenum.

This results in a catarrhal inflammation of the mucous membrane, an albuminous exudate, and the exfoliation of epithelial cells. (According to Naunyn, the addition of albumin to the bile produces a copious precipitation of the stone-forming elements.)

This precipitate, with clumped bacteria, and degenerated cell masses as nuclei, forms biliary calculi.

Atropia in Eye Diseases.

Adolph O. Pfingst writes in the Medical Age for December 10th of the use and abuse of atropia in diseases of the eye.

It is harmful in superficial inflammations as of the conjunctiva and in cases with increased intraocular tension. For examination of the fundus and in refracting, homatropine is more useful.

The drug has its greatest field of usefulness in inflammations of the eyeball. In iritis especially it should be used early. In corneal ulcers as the iris is nearly always irritated, it is valuable. In phlyctenular and parenchymatous keratitis it is also useful. It should not be used in anterior or posterior synechia with tendency to glaucoma.

Abscess of the Liver.

Walter C. Wood in the Brooklyn Medical Journal for December, says that the usual avenues of infection in abscess of the liver are traumatism, parasites, from adjacent suppuration by direct continuation, and from pyemia. The only rational plan of treatment is prompt drainage.

The accepted operation to-day is drainage at one sitting. The operators who report the best results advise incising the liver tissue with the cautery. The procedure differs, depending upon the location of the abscess as to whether it should be approached through the abdominal or pleural cavities. A few late cases present adhesions and can be incised directly without opening the abdominal cavity. The usual abdominal operation is as follows: A vertical incision four inches in length, commencing at the border of the rib, is made over the most prominent part of the swelling. The peritoneum is incised through the entire length of the incision. The general cavity is then packed off with gauze. An aspirator is used to locate the abscess and draw off as much of the fluid as possible. The needle must be large, as the pus is usually thick. An incision, one or two inches long, is now made through the liver tissue into the abscess, with the cautery knife, and the cavity sponged out. Its interior is then explored to locate any abscess admitting of drainage through the first one. It is well to curette a chronic abscess, but probably not an acute one. The use of tincture of iodine to swab out the cavity aids the disinfection. The margins of the liver tissue are then united to the skin with half a dozen sutures, using a round needle; a short drainage-tube and moderately firm packing are then inserted.

Asthma and Pregnancy.

Andebert read a paper with this title before the International Congress.

As reported in Obstetrics for December, he stated that in certain women we observe asthma only in the course of pregnancy. In such patients asthma thus becomes a true sign of pregnancy, and in one case mentioned by the author was the means of calling attention to her condition.

In women who are naturally subject to asthma, pregnancy invariably aggravates the latter, and at the time of the delivery the paroxysms have been known to become excessively violent and dangerous, although it may also happen that they are suspended at this time.

The general prognosis of pregnancy in the asthmatic is grave. In seven cases known to the author there was one fatality actually due to the disease in question. There is further danger to the child, and in one of the author's cases the fetal heart was inaudible for a considerable time. The child, born asphyxiated, could not be reanimated.

The asthmatic paroxysms do not influence the labor pains, but the expulsive efforts greatly aggravate the bronchial difficulty.

Some benefit is derived in these cases from morphia and local revulsion in true asthma, and from quinine in hay fever.

It may be necessary in these cases to provoke or hasten labor.

Abdominal Flushing in General Septic Peritonitis.

According to the Medical News for December 29, Irving S. Haynes says that in general septic peritonitis the abdomen should be thoroughly flushed out with normal salt solution. The tube that conveys the solution into the abdominal cavity should be carried to every part of the peritoneal cavity. This should be done before looking for the lesion. Sponging has been recommended, but it is too slow and not every part of the peritoneal cavity can be thus reached. If the sponge is not used very gently or if it is at all rough in texture, the delicate peritoneal covering of the intestine is injured and adhesions will form. Evisceration acts on the patient as would a blow on the solar plexus. The resulting shock is serious, persistent and is felt at once. If the intestinal coils are much distended an incision should be made in them at a point opposite the mesenteric attachment. As the gas escapes from them care should be taken that none of the intestinal contents find their way into the abdominal cavity. Hydrogen peroxide in full strength may be used without danger in the abdominal cavity. Its use, however, does not seem advisabla. Flushing appears to be the best way of cleaning the soiled peritoneum.

Achondroplasia.

According to Medicine for December, Pierre Marie in La Presse Medicale for July 14th gives two examples of this comparatively rare affection, which was first discribed by Parrot in 1878 and is sometimes spoken of as fetal rickets.

He gives a report of two additional cases and calls attention to a certain disproportion of the different parts of the skeleton. In both of the cases measurements were carefully compared with those of a normal child of about the same height, but very much younger than the case described. One of his cases was 42 years old, the other 18. The older one was slightly taller than a boy of eight years, and the other was somewhat shorter. This diminution in height was due to extremely short extremities; the trunk of each of these dwarfs was longer than that of the normal boy of eight years, but the legs were very much shorter. This shrinking of the lower extremities is largely due to a very short femur. The arm was much shortened, the lessening in its length being largely confined to the humerus, the forearm being relatively very long. As to the nature of this affection, the writer is inclined to the view that intra-uterine rickets has nothing to do with its development, but that it is a dystrophy of the primordial cartilages brought about by general causes.

Acute Alcoholism.

In the St. Louis Medical Review for December 1st, J. K. Banduy has a paper on the reduction of mortality in the treatment of acute alcoholism. He concludes that it is a self-limited disease.

Acute alcoholism results not from sudden withdrawal, but from excess and abuse of alcoholic "so-called stimulants," better called sedatives and narcotics in the doses in which they are taken.

The expectant plan of treatment is the most rational.

Opiates are dangerous, because they additionally derange digestion, and acting as powerful cardiac sedatives, tend to paralyze the heart, and finally, because they check elimination, interferes with the normal secretions and digestion.

Sleep is never to be attained at risk or hazard to the patient, but is to be expected as one of the harbingers of a convalescence not to be enforced.

In acute alcoholism, as in many other acute diseases, the vis medicatrix is fully adequate in most cases to produce the happiest results.

Bacteriological Examination in Otitis Media.

Talbot R. Chambers in the Journal of the American Medical Association for December 1st, emphasizes the importance of bacteriological examinations in suppurative disease of the middle ear and mastoid. As a help in prognosis the value is great. He says that the great value of having a microscopical examination of the catarrhal or purulent discharge is seen in the case of diplococcus pneumoniæ (Frankel), where one may prognosticate a speedy cure, and secondly, one may, with equal confidence, sew up the mastoid wound completely and discharge the patient in about one week, or at most not over two weeks.

With streptococcus alone, 50 per cent. come to a cure. One case of acute suppurative mastoiditis (streptococcus alone) had hot-water syringing and zinc chlorid instillation 2 per cent. in strength, and after paracentesis came to rest in two weeks. With streptococcus and pyocyaneus the chances are even of an eventual if tardy cure.

With streptococcus and staphylococcus, the chances are two to one against cure.

If staphylococcus alone, four out of nine may come to a cure.

If pyocyaneus alone, one-half may be cured and the others prove stubborn.

If coli bacillus communis be the germ it is practically incurable.

All these may prove stubborn and resisting except the diplococcus pneumoniæ (Fraenkel), which yields forth-with to pepsin. About one-fifth of all the cases came in this class. It is a fair inference that many cases which failed to return were cured and probably of this class.

There were several factors causing imperfect efforts at cleansing the middle ear, such as the construction of the individual canal, a pin-hole in the drum, a pouting drum, attic disease, granulations in recesses where possibly denuded bone exists, and last but not least, nasal, nasopharyngeal and tonsillar abnormalities. These difficulties having been conquered, the disease will sometimes come to an abrupt termination with only little or no after-treatment.

Bacteriology and the Stomach.

J. H. Kellogg in the Virginia Medical Semi-Monthly for December 21st, gives the results of some experiments upon the stomach.

He concludes that a healthy stomach does not require the aid of germs in the digestion of foods. Sterile food is digested in the healthy stomach without the development of bacteria or other micro-organisms.

Neither free hydrochloric acid nor combined chlorine, even when present in excess, are certain means of sterilizing the gastric contents.

The gastric contents may be found sterile after a sterile test meal in cases in which free hydrochloric acid is entirely absent and the proportion of combined chlorine small.

Fruits, especially fresh fruits, and fruit juices, are capable of completely sterilizing the stomach when used in sufficient quantity.

Construction of Amputation Stumps.

According to the Journal of the American Medical Association for December 29, A. V. Moschcowitz read a paper on this subject before the N. Y. Academy of Medicine, with a report of two cases of amputation by the osteoplastic method of Bier.

He said that since he had become interested in this subject he had examined many amputation stumps made by a great variety of methods, and had convinced himself that every stump made by other than Bier's osteoplastic method or by a disarticulation, was more or less painful. It was true that sometimes, owing to the very bad condition of the patient, the longer operation of Bier would be contraindicated, but there could be no doubt about the superiority of the stump which it gives. In amputating the leg by this method, the periosteum of the anterior surface of the tibia is circumcised, the edges of the periosteum are raised for a short distance, and a thin plate of bone is sawn out, preferably with a saw specially devised for this purpose. A skiagraph taken eighteen days after such an amputation showed perfect union between the osteoplastic flap and the tibia, but not between this flap and the fibula.

Cancer of the Rectum,

Geo. J. Monroe, in the Cincinnati Lancet-Clinic for December, says that he is not in favor of excision of the rectum for cancer. His treatment is to control pain as near as possible and keep the patient as clean and comfortable as possible. The cancer will take its course in spite of us. Kronleine, of Zurich, has formulated the following conclusions:

Extirpation is the only radical method of treatment.

The operation is attended with a mortality of 20 per cent.

A permanent cure is obtained in at least one-seventh of the cases subjected to operation.

The best functional results are obtained when the divided bowel is made to occupy the normal position of the anus and when the sphincters are preserved.

A sacrifice of all structures of the rectum is attended with worse functional results, without increasing the number of permanent cures.

The sacral method of operating should be reserved for carcinomata which are situated in the upper part of the rectum.

Cirrhosis of the Liver.

According to the Medical News for December 8, Chas. H. Frazier reports a case of cirrhosis of the liver operated upon nearly five months ago which shows very satisfactory results.

Diuretics and tappings had produced no effects. The abdomen was opened, the peritoneum at each side of the wound rubbed with gauze to produce irritation and the omentum sutured to the parietal layer. The wound was closed without drainage. The patient was tapped on the thirteenth day after the operation and a second time on the thirty-sixth day, since which time no accumulation of fluid has taken place. No

other treatment was instituted except necessary laxatives. There seems to be no doubt of the success of the operation in the case. Dr. Frazier believes that suprapubic drainage after such operation is an unnecessary risk of infection and advises against its use. The abdomen should be closed and tapping resorted to while venous channels are forming in the adhesions. The operation should be done under local anesthesia if possible, as such subjects bear narcosis very badly.

Commoner Affections of the Hands and Feet.

In the New Orleans Medical and Surgical Journal for December, Isadore Dyer says the commoner affections of the hands and feet are too much overlooked by the physician. He does not consider it at all beneath his dignity to treat corns, sweating feet and ingrown nails. The barber is usually an ignorant specialist in diseases of the scalp and the druggist has become adviser to the public in matters of smaller import to say nothing of the numerous quacks and charlatans who live upon the credulity of the people.

He thinks it a matter of no small importance that the physician should learn more about and treat intelligently these lesser ailments.

For sweating feet or hands he advises castile soap, restriction of drink, strychnin internally and 3 to 5 per cent. solution of salicylic acid locally for the hands, for the feet the acid should be used in powder form as one-half dram of salicylic acid, tannin one dram, powdered arrow root one-half ounce and rice starch one-half ounce to be dusted in the stocking once daily.

He then discusses the treatment of the disease of the nails and of corns and bunions.

Cretinism and Thyroid Extract.

J. B. McGhee, in the Cleveland Medical Gazette for December, reports a case of cretinism treated with thyroid extract. The patient was a girl of seven. The hair was dry, the skin hard, the general appearance squatty, lips protruding, tongue enlarged and the mental condition dull and apathetic. She would sit quietly for hours, take no interest in her surroundings and showed no inclination for childish sports.

She was given a five grain tablet of thyroid extract, containing two grains of the desiccated gland, three times a day. This amount, however, caused headache, palpitation and general distress, but no urticaria or glycosuria was noticed. When the dose was reduced to one-half tablet three times a day no depression nor disagreeable results followed, and although this dose has not increased, improvement has steadily continued. The skin and hair first responded to the action of the remedy, the hair becoming soft and silky and the skin smooth and clear; the dull look was replaced by one of brightness, the prominent abdomen became less evident, although a slight lordosis still exists. When first seen the height was 32 1-2 inches, and now, after a year of treatment, it is nearly 39 inches, while her weight has increased 10 pounds. The body is more symmetrical and the mental improvement has been so decided that she is about to attend school, which is certainly remarkable when we remember that for the four years preceding she had been practically at a standstill, mentally and physically.

Attention has been called to the fact that with the rapid growth under thyroid treatment, the leg bones are apt to bend when used to any great extent, and for this reason it has been recommended to keep the patient in bed as much as possible. In this case no such result followed, and the child was allowed to move about as freely as she wished. Of course we are aware that the use of the gland or its principle must be continued at intervals throughout life, as it is a physiologic essential, but it is certainly most satisfactory to feel that we have an agent capable of producing and maintaining so remarbable a restoration of growth and activity.

Caustics in Malignant Disease.

S. B. M'Gavran, in the Columbus Medical Journal for November, reports five typical cases of epithelioma of the face successfully treated with caustics.

1. Patient with epithelioma located upon the center of the forehead in the form of a smooth, well defined, slightly nodulated tumor, about two inches in diameter, rising abruptly from the surrounding skin to the height of half an inch, with a flattened surface, firm about the periphery, but somewhat fluctuating in the center, and of a dusky purplish hue.

2. Another, with epithelioma of the nose presenting a reddish, nodulated tumor the size of the finger nail and slightly raised above the surface of the skin, from which it rose abruptly with a smooth, elevated, pearly border. It was covered with a thin crust or scale. The history of the affection showed it to be of several months duration, having first been noticed as a small pea-sized nodule in the skin without sensation of any kind, but which grew gradually until it

reached its present size, Recently the patient had experienced a slight pricking or itching feeling in the tumor, and it had grown constantly, although slowly, from its first appearance.

3. Third case very similar in character and history to the second, the disease having extended to about the same size and being situated on the cheek just at the side of the nose.

4. The point attacked was the nose, the entire cartilaginous portion of which had been destroyed. The borders both of the septum and the remains of the alae nasi were infiltrated, enlarged, and in one of two places suppurating slightly. Disease appeared to be extended into the nares.

5. Epithelial cancer situated in the temporal region, near the outer canthus of the right eye. The cancerous growth is confined to the skin, without involving the mucous membrane at the outer canthus of the eye.

He uses the following paste:

Wheat flour,	60 grams
Starch,	60 grams
Arsenic,	1 gram
Cinnabar,	5 grams
Salammonia,	5 grams
Corrosive Sublimate,	0.50 centigram
Solution chloride of zinc at 52 deg. F.	245 grams

Corning's Anesthesia in Children.

In the Medical Record for December 15, Wm. S. Bainbridge reports seven cases of anesthesia after Corning's methods in children.

The cases were not specially selected and the same preparation was made as for general anesthesia. The indications were deformity of left hip, unbilical entero-epiplocele, tuberculous caries of ilium with inguinal sinus, severe congenital talipes equinovorus with considerable genu varum of right leg, congenital malformation of glans and prepuce with slight hypospadias, slight lumbar kyphosis and large psoas sinus with small inguinal opening, and tuberculous ostitis of the head of the tibia with discharging sinus.

The patient was placed in a sitting posture, well bent forward, and prevented from moving during injection. After the skin over the site of puncture had been treated in the usnal antiseptic way an ethylchloride spray was employed, rendering the introduction of the needle practically painless. No difficulty in introducing the needle. A point one-half inch to either side of the median line and midway between the spinous processes was taken, and the needle pushed forward, inward, and upward. Special effort was made to keep away from the central part of the spinal canal by a close relation of the needle point to the dura. The instrument used was of the simplest kind. A small-sized steel aspirating needle with a short-bevelled pointed end, having a well-fitting hypodermic barrel, answered every purpose. As nearly as possible the same amount of cerebro-spinal fluid was allowed to escape as of the injection medium which was to be introduced. The injection was given slowly, usually takiug one and one-half to two and one-half minutes. Often the first evidence that the cocaine was taking effect was some dilatation of the pupil or a slight nausea. During the operation a nurse known to the child stood close at hand, and the operative field and the instruments were screened from view. Anything which resembled a blindfolding excited and disturbed the patient. As far as possible general tests were made. There seemed to be no loss of motor power and the ability to detect heat and cold and the muscular and tactile sense were retained. These are important points to remember, for too hot a solution or unduly rough handling may be thoughtlessly applied, causing the patient to become difficult to manage.

There have been many cases of failure reported which were attributed to the use of heat in the sterilization of the injection fluid.

In all the above cases the following method has been employed with uniform success. While this simple way of sterilizing may be open to bacteriological objections, practical experiments have proven it to be satisfactory. About a drachm of ether is poured over gr. v. of powdered cocaine or eucaine in a measuring glass, which has been boiled, as well as the glass rod used to mix the ether thoroughly with the powder. The mixing process is continnued until all the ether has disappeared. Then one ounce of boiled filtered water is added. The solution is made fresh before each operation.

After-effects: In all cases any after-effects of an unpleasant nature were temporary. The urine on the day following the injection was examined in all cases for sugar and albmin. The result was uniformly negative. In only one case were there any serious symptoms following the operation. Here was a high injection, with Pott's disease of the spine, in a patient in bad general condition.

Cocaine versus eucaine: His cases so far have proved more satisfactory when cocaine has been employed. In one patient he had

the opportunity of noticing the effects of both cocaine muriate and beta-eucaine hydrochlorate at different operations. The after-effects seemed no greater in the other and the analgesia was not so uniform or lasting when the eucaine was employed.

Cause of Pulmonary Phthisis.

According to Thos. B. Keyes, in the Medico-Legal Journal for September, the cause of consumption is first en-nervation of the pneumogastric nerve which lowers the vitality of the lung tissue and allows the bacilli to thrive.

He says that the nerves of the lungs are to be treated from the anterior and posterior pulmonary plexuses, which are formed by branches of the pneumogastric and sympathetic. The nerves follow the course of the bronchi and in their walls many ganglia are situated.

The sympathetic ganglia possess a nutritive influence over the nerves which pass from them to the periphery.

The pneumogastric nerve subserves construction and metabolism. En-nervation of the nerve produces inhibition, diminished activity of repair of tissue and building up.

After division of both pneumogastrics the lungs are found to be gorged with blood and inflamed and full of frothy mucous.

Clinical experience teaches that correction of all irritations that might lead to exhaustion of the pneumogastric and thus impair nutrition of the lungs, is the most important part of the treatment of pulmonary consumption.

The cure of pulmonary tuberculosis resolves itself upon two points: First, removal of the cause which is generally catarrh of the stomach or dilatation of that organ; second, to promote more fibrin in the blood, in order to aid the formation of fibrin about the tubercular area, which is best done by systematic living in outdoor life, and proper medication after removal of the cause.

Compound Fractures.

J. T. Spelman in the Denver Medical Times for December reports three interesting cases of fracture. One was a compound comminuted fracture of the lower jaw, one of the same character involving the frontal and ethmoid bones, the other case was a comminuted fracture of the clavicle, all made satisfactory recovery. From a study of these cases he concludes that: In operations upon the lower jaw where removal of bone is necessary it should always be done subperiosteally. While this is a good universal rule, it is particularly applicable to this member, for on account of the vascularity of the bone and the well known fact that ununited fractures are rare, regeneration of the bone may confidently be hoped for, more especially in the young.

Rectal enemata of salt solution and appropriate food stuffs relieve thirst and support life.

In compound fractures of the skull, attention should be given, not entirely to the bone injury, but to the particular part of the brain disturbed, the frontal region being particularly satisfactory for operative interference.

Fractures of the clavicle, with excessive displacement or comminution, and compound and irreducible fractures should be treated as all fractures elsewhere, under similar conditions, by the open method.

Silver wire as suture material, for bones, in his hands has not been found satisfactory, necrosis frequently resulting and the wire causing so much irritation that it eventually had to be removed.

Disinfection.

According to the Sanitarian for December, F. C. Robinson in his report to the American Public Health Association said that houshold disinfection after infectious diseases should combine the use of formaldedyde with other means.

It can be safely relied on for all exposed surfaces, and these only. Formaldehyde requires moisture enough in the air to nearly saturate it for its most efficient working. There is much disagreement among experiments as to the disinfection of tuberculous matter. One says a 2 per cent. solution of formaldehyde disinfects it; another, that even a 10 per cent. solution does not. Several say that formaldehyde gas applied as above destroys it; others deny this. Further experiments are needed. Soap is a poor disinfectant, but 1 per cent. caustic alkali, or 20 per cent. carbonate of alkali is efficient. Carbolic acid, less than a 5 per cent. solution, has little scientific value. The creosotes, as used in creolin, lysol and solutol, are safe disinfectants. Alcohol at from 50 to 75 per cent. has considerable disinfecting power, but not at other strengths. Most metallic salts, except those of mercury, have little disinfecting action. Bichloride of mercury should be used in strength at least 5 to 1000 if tuberculous matter is to be disinfected. A fresh solution is more active than one which has stood for some weeks. The addition of salts does not increase the strength of a fresh solu-

tion, but prevents it from losing its strength as rapidly. Bright sunlight kills the tubercle bacillus in a few hours, and, as a rule, pathogenic bacteria keep their greatest virulence only when kept in the dark.

Death from Nitrous Oxide Gas.

In Pediatrics for December 1st, Thos. C Evans reports a death from nitrous oxide gas anesthesia. The patient was a child of five years of age and was being anesthetized for an operation for adenoids. After a few inhalations the operation was begun, but as there was no hemorrhage he stopped and it was found that the child was dead. Suspension, artificial respiration and stimulants were used to no avail.

Only a minute and a half had elapsed from the first inhalation. The finger could be passed between the vocal cords into the trachea showing that there was no obstruction. He thinks the death was due to cardiac paralysis. About 3½ gallons of gas had been used.

Diphtheria Antitoxin.

In the Boston Medical and Surgical Journal for December 20th, John H. McCallom makes a plea for larger doses of antitoxin in the treatment of diphtheria. He concludes:

That the ratio of mortality of diphtheria per 10,000 of the living was very high in Boston previous to 1895.

That the ratio of mortality per 10,000 has been very materially reduced since the introduction of antitoxin.

That the percentage of mortality in the South Department is lower than that of any of the hospitals taken for comparison.

That since larger doses of antitoxin have been given the death rate has been materially reduced, this reduction having occurred in the apparently moribund cases.

That no injurious effect has followed the use of the serum.

That to arrive at the most satisfactory results in the treatment of diphtheria, antitoxin should be given at the earliest possible moment in the course of the disease.

Extra-Genital Chancre.

In the St. Louis Medical and Surgical Journal for December, A. H. Ohmann-Dumesnil reports twenty-five cases of extra-genital chancre.

The twenty-five cases occurred in ten localities. Seven on the lip, five on the finger, two on the thumb, two in the groin, two in the rectum, three on the tongue, and one each on the forearms, palate, tonsil and neck. The conditions which led to infection were undoubtedly accidental in ten cases, six being physicians and one midwife. Twelve out of the 25 were the result of the depravity of the subject or of the one who did the inoculating, and of these ten were females and two males.

Fetal and Infantile Typhoid.

In the Archives of Pediatrics for December John L. Morse reports several cases of fetal and infantile typhoid.

In regard to fetal typhoid he says that the typhoid bacillus can traverse the abnormal, and possibly the normal, placenta from mother to fetus. Other organisms may also pass in the same way.

Infection of the fetus results. Because of the direct entrance of the bacilli into the circulation intrauterine typhoid is from the first a general septicemia. For this reason, and possibly also because the intestines are not functionating, the classical lesions of intrauterine typhoid are wanting.

The fetus usually dies in utero or at birth as the result of the typhoid infection.

It may be born alive but feeble and suffering from the infection. If so, death occurs, in a few days without definite symptoms.

It is possible that the fetus may pass through the infection in utero and be born alive and well. There is however, no proof that this happens.

Infection does not always occur. The pregnant woman does not necessarily transmit the disease to her child.

As to infantile typhoid he concludes that except for the lessened exposure in the first year through food there seems no obvious reason why typhoid should be less frequent in infancy than in later life. Nevertheless, judging from the small number of cases reported, it is less frequent. It may really be less frequent or only apparently so because the disease is not recognized, being mistaken for other conditions. Bacteriological examinations in large series of autopsies on infants and the use of the Widal serum test in large numbers of sick babies seem to offer the best means for determining both the frequency and the character of the disease at this age.

The accuracy of the diagnosis in many of the earlier reported cases must be regarded as very doubtful, and hence no satisfactory conclusions can be drawn from them. Analysis of the more recent and certain cases seems to show that the symptoms of infantile typhoid are essentially the same as in adults, but that the course is shorter

and the mortality greater. These conclusions may be inaccurate, however, as it is possible that they are based on the severe cases alone, the milder cases having escaped notice. The prthological changes in the intestines are, as a rule, insignificant. The contrast between them and the severity of the general symptoms is striking. The probable explanation is that in the infant as in the fetus, but to a less degree, the disease is a general rather than a local infection.

The serum reaction occurs in infantile as in adult typhoid. There are no data as to whether or not it occurs in fetal typhoid.

The agglutinating power may or may not be present in the blood of infants born of woman with typhoid. If present, it is transmitted from the mother to the child through the placenta. If it is possible, however, that it may be formed in the child in response to toxins transmitted through the placenta. The agglutinating principle can pass through the normal placenta. Part of it, however, is arrested in the passage. Whether or not it is transmitted seems to depend on the strength of the agglutinating power in the maternal blood and the length of time during which the placenta is exposed to it.

It may be transmitted to the nursling through the milk. It may appear in the infant's blood in less than twenty-four hours. It lasts but a few days after the cessation of nursing. It is always weaker in the milk than in the maternal blood and always weaker in the infant's blood than in the milk. This weakening of the agglutinating power is due to the obstruction to its passage in the mammary gland and in the nursling's digestive tract. The chief factor governing transmision is the intensity of the power in the maternal blood. A subordinate but important factor is some unknown condition in the digestive tract. If the power in the maternal blood is weak and the obstacles great it may not be transmitted.

Fracture of the Clavicle.

In the Virginia Medical Semi-Monthly for December 7th, J. W. Henson describes an improved appliance for the treatment of fracture of the clavicle. The apparatus consists of a shoulder-cap with an anterior and posterior extension long enough to go around the patient over the arm of the injured side. This is supplemented by two bands running around the body and arm, one just below the shoulder, the other at the elbow.

He claims that appliances for treating fractured clavicle have heretofore proven too uncomfortable to be borne without being molested by the patient or frequently loosened and readjusted by the surgeon.

That, in previous appliances, too little provision has been made for rendering the parts immobile.

That the scapula, as a factor in the management of the outer fragment in this fracture, has been neglected by some surgeons in favor of the humerus, which is unscientific—any one of these facts accounting for many failures.

That the appliance just shown puts the fragments in their relative position certainly as well, if not better, than any other yet devised.

That it is perfectly comfortable, it matters not how long worn.

That it renders the entire upper extremity as immobile as can possibly be done without sacrificing comfort.

That it can never slip or get displaced without interference on the part of the patient.

Fetal Monstrosity.

According to the Journal of the American Medical Association for December 8th, E. G. Zinke presented a specimen of fetal monstrosity before the Cincinnati Academy of Medicine. In January 1900, he had been consulted by a young married woman, 23 years of age, suffering with obstructive dysmenorrhea. Under his advice, the cervical canal was dilated. She conceived soon afterward, the date of her last menstruation being March 23. Pregnancy at first was uneventful beyond a little gastric distress. On examination at about the sixth month he had found the abdomen as large as that at term, and was able to diagnose a large amount of ammotic fluid. Fetal movements were readily palpated, but though the child was in the first position, the fetal heart-sounds could not be detected. He then informed the husband of the possibilty of multiply pregnancy or of monstrosity, but requested that this knowledge be kept from the wife. At about six and a half months abortion took place, the rupture of the membranes being accompanied by the escape of an enormous amount of amniotic fluid, the abdomen then assuming a size commensurate with the length of the pregnancy. The vertex was rapidly delivered, but as the face began to present, progress was arrested, and on examination a large mass could be felt apparently in connection with the child's face. When delivery was accomplished this mass was found to be united to the child by a pedicle attached to

the junction of the hard and soft palate, and continuing well outside the mouth. In weight it was about two pounds. Examination showed if to be in all probability a second fetus that had undergone destruction.

Fracture of the Femur at Birth.

Before the New York Academy of Medicine, T. H. Myers presented a baby one month old under treatment for fracture of the femur just below the trochanter minor. The child was the second of twins and presented by the breech.

The forceps failing, a hook had been used and caused the fracture with the very unusual displacement of the lower end of the upper fragment backwards in spite of the tendency of the psoas and iliacus to pull it forward. The next day the child was in great distress. There was extensive ecchymosis at the seat of the fracture, ⅝in. shortening, edema of the limb and eversion of the foot, an any slight motion, the muscles attached to the anterior superior spine were thrown into a marked spasm which drew the lower fragment forward. A plaster of Paris jacket was applied in which was incorporated a steel bar, ¾x½ in., extending from the angle of the scapula to the toes, and bent at a right angle at the buttocks and heel. Traction was made and eversion overcome by adhesive plaster applied to the limb and fastened to the steel foot-piece. The plaster of Paris enclosing the pelvis provided secure counter-traction. A light plaster of Paris bandage secured the limb to the splint and held back the upper end of the lower fragment. A fenestrum permitted the dressing of the cord. The child fell asleep at once on this application which made after attendance easy and promoted the comfort and general health of the patient. No displacement. Shortening ⅛ inch.

Functionating Power of Kidney after Nephrectomy.

Catheterizing the ureters in renal cases has been an enormous advance in surgery. It discloses the presence of a second organ and to a certain extent its functional value.

There are many cases, however, where this method fails, as, for instance, where, usually, owing to a tuberculous process, the bladder has so changed its shape that it is impossible to find the ureteral orifices. In such cases resort may be had to the following methods, according to H. Kummell, Medical News, December 8th: (1) The determination of urea. (2) The determination of the freezing-point of the blood. (3) The determination of the freezing-point of the urine. (4) The administration of methylene blue or phloridzin with subsequent examination of the urine. The first method is undoubtedly the simplest, but is the least trustworthy owing to tho marked normal variations in the amount of urea excreted. Yet it may be said that a reduction down to 15-16 grams daily indicate insufficiency. A much more accurate method is the second. It has been found that normal blood has a freezing-point 0.36 deg. C. below that of distilled water. A diminution of the freezing-point down to 0.50 deg. C. or lower indicated in all cases that the kidneys are not functionating properly and contraindicates operation. Instead of blood, urine may be tested, when a freezing-point of minus 0.9 deg. C. indicates renal insufficiency. This, however, does not hold true so absolutely as in case of blood. By means of a special apparatus the seemingly difficult experiment is rendered very simple. Cryoscopy, this new method of determing the functional quality of the kidneys, promises to give some important results.

Fractures of the Major Bone Shafts.

In the Interstate Medical Journal for December Thos. H. Manley has an article on fractures of the major bone shafts contiguous with or involving the articulations. He says that it should always be borne in mind, that in fractures of the bone shafts, the nearer they are located to the joints, the more serious the character.

When complicated by a subluxation, or when a fracture extends into the articulation, troublesome complications are quite certain to follow in a large proportion of cases. In this class the osseous lesions may be unimportant as contrasted with the change to the arthritic structures, the large blood vessels or the nerves.

The symptoms of joint fractures are not unequivocal, as there are no special characteristic features in the pain of luxation, sprain or fracture; nevertheless, as a rule, after reaction sets in, the acute suffering is greater in joint than any other fracture.

The definite diagnosis of the precise position and quality of either an intra or an extra-articular fracture, when there is doubt, is often difficult, and sometimes impossible. In cases without displacement of the fragments, the application of great force under anæsthetics to verify diagnosis is an uncalled for procecure, unless the patient insists on it. In consequence of the frequent errors and uncertainties attending the use of the

Roentgen-rays, without other confirmatory evidence, their employment, when in doubtful osseous lesions, as a diagnostic agent, are totally unreliable.

The primary treatment of closed intra-articular fractures, or those in close proximity to a joint, in general, must be recognized on these fundamental principles everywhere. In intra-capsular fractures at the hip, with proper aseptic precautions, primary resections of the distal fragment will abbreviate convalescence, spare the patient needless suffering, and leave a more useful limb than when the articular head is retained.

In a considerable proportion of aggravated cases in young or vigorous subjects, consecutive osteoplastic surgery will frequently effect most gratifying results. This is only resorted to after acute symptoms have subsided.

Face Presentation.

In the Homeopathic Journal of Obstetrics for January, Richard Douglass says that if a *face presentation* is detected at the outset of labor we should remember that the escape of waters at this stage is most disastrous. Sufficient vaginal examination for confirmatory diagnosis alone should be made. We should rely upon abdominal palpation largely. While the os is only slightly dilated and the membranes unruptured, every effort should be made to permit Nature to spontaneously correct this faulty position and re-establish the vertex by flexion, and this she often does. We can contribute greatly to this end, and by simple measures. Oftentimes placing the patient upon her side, that to which the child's abdomen is directed, or to which the face looks, changes the relation of the spinal column and the condyles of the occiput. This may re-establish flexion. If this should fail, place the patient in knee and chest position and with the hand push up the head. If the patient should maintain this position through several pains it is probable that adaptation at the brim with better pesentation would follow. The practical physician knows how difficult it is to induce a woman in labor to assume this position. A much less embarrassing and just as effective posture is Trendelenburg's.

Gastroptosis.

In the Medical Record for December 1st, Geo. R. Lockwood gives a study of 45 cases of gastroptosis. Of this number 8 were males and 37 females.

After a careful study of these cases he concludes that in the great majority of cases an adequate cause for the gastroptosis is not discoverable.

That gastroptosis does not of itself, in an uncomplicated form, produce symptoms.

That the displacement of the stomach, however, is a predisposing cause of a variety of gastric neuroses, of sensation, motion, and secretion.

That these neuroses are usually induced by some definite mental or physical strain.

That the displacement of the stomach is a strong exciting cause for muscular atony; that atony is the most common cause for the symptoms presented.

That a complicating atony is associated with a more or less profound neurasthenia, and that a direct relation exists between these two conditions.

That gastric acidity is increased in direct proportion to the atony, unless counteracted by gastritis.

That mild degrees of gastritis are apt to occur in stomachs that are displaced, but the symptoms are neither severe nor persistent.

That gastritis occurring in atonic and displaced stomachs reduces the excessive acidity of these cases and seems to modify the severity of symptoms.

That atonic dilatation without mechanical hindrance is exceedingly rare.

That dilatation, or better, muscular insufficiency, may occur in gastroptosis from duodenal kinking, from arterio-mesenteric constriction, or from pyloric spasm.

That pyloric spasm is common in displaced atonic stomachs with hyperacidity, and may lead to a temporary dilatation.

That in a large number of cases, inattention to the conditions of atony, of neuroses, and of gastric secretions has led to an unsuitable, insufficient diet which reacts both on general nutrition and on local conditions within the stomach.

That surgical intervention is applicable only to the cases in which dilatation exists.

Gynecological Treatment of the Insane.

In the Medical Sentinel for December, Ernest Hall gives a table of 73 cases of insane patients treated for gynecologic diseases.

He says that the prevalence of diseases of the pelvic organs, and the absence of any other determinable organic disease in many patients who manifest psychic abnormality, coupled with the fact that in a by no means small percentage of cases the removal of the pelvic disease is followed by a rapid return to the normal mental condition, justly lead us to the conclusion that

between pelvic diseases and mental abberration there exists some correlation, but as to its exact definition we cannot yet speak.

That in all cases of mental abnormality in both sexes which develop from the advent of puberty onwards, the condition of the pelvic organs with their functions should be made a matter of searching enquiry.

That whenever possible before committment to the hospital for the insane, the pelvic organs should be examined and if any abnormal conditions be found such condition should receive appropriate treatment.

That gynæcological treatment should be recognized as a most important part of asylum therapeutics.

Hernia in Children.

In the Journal of the American Medical Association for December 22, A. J. Ochsner discusses the treatment of hernia in children.

He says that the development of hernia in children is favored by ; *a*, faulty development of the abdominal wall ; *b*, insufficient strength in the tissues involved in closing the umbilical, inguinal or femoral openings ; *c*, abnormal intra-abdominal pressure ; *d*, unclosed condition of the tunica vaginalis.

The causes *a* and *b* are likely to be inherited.

The abnormal intra-abdominal pressure is due : *a*, to gaseous distension resulting from improper feeding ; *b*, to the exertion necessary to accomplish defecation in case of chronic constipation ; *c*, to the same exertion necessary to evacuate the bladder on account of obstruction due to phimosis ; *d*, to severe, long-continued cough.

A large majority of all cases of hernia in children will heal spontaneously if the increased intra-abdominal pressure is relieved, the hernial sac being kept empty.

This can be accomplished by means of trusses or, much more rapidly, in inguinal and femoral hernia, by placing the child in bed with the foot of the bed elevated, the time required usually not exceeding six weeks.

Children with a tendency to the formation of hernia should be guarded against developing coughs.

Their diet should be given at regular times and chosen with a view to avoiding gaseous distension.

Constipation should be entirely prevented.

In case of boys, phimosis should be relieved if present.

Badly nourished and badly cared for children of the poor should be treated in hospitals, being placed in bed in the inverted position, the cause of increased intra-abdominal pressure being removed at the same time by proper treatment.

Operation is indicated *a*, in strangulated hernia ; *b*, in irreducible hernia due to adhesions ; *c*, in case the opening is unusually large in a free hernia, especially if the condition is hereditary and the hernia can not be retained by means of a truss ; *d*, in reducible hydrocele.

Except in Class *c*, the operation should consist simply in carefully dissecting out the sac, ligating it within the abdominal cavity, cutting away the sac and permitting the stump to retract within the abdominal cavity, and simply closing the wound in the skin.

The recumbent position, with the foot of the bed elevated, is of great importance in the operative as well as in the non-operative treatment of herniæ in children.

If the child can not be kept in this position sufficiently long, a well-fitted truss should be worn night and day until there has been no protrusion for at least six months, at the same time the necessary precautions being constantly taken to guard against intra-abdominal pressure from any cause.

Hydatid Cyst of the Pancreas.

According to the Canadian Practitioner and Review for December, Geo. A. Peters reports a case of hydatid cyst of the pancreas, before the Toronto Clinical Society.

For two or three years the patient has suffered from attacks of pain obscurely located in the stomach and bowels, and latterly had his appendix removed, at which time a tumor could be felt in the left hypochrondriac region, which at times was the seat of great pain. The cyst was aspirated and thirty ounces of a limpid fluid of sp. gr. 1.13 withdrawn. Much relief was experienced, but the cyst slowly filled. and the temperature and pulse showing that a septic process was proceeding, it was decided to operate. On examination a rounded tumor could be felt below the ribs on the left side, about midway between nipple and sternal lines. Its relation to the pancreas was determined by the stomach resonance above the tumor, and between it and the liver as well. Between the spleen, kidney and tumor resonance was also present. The operation was done from behind, the incision being made along the margin of the erector spinæ three inches long, Considerable difficulty was experienced in its removal owing to the toughness of the walls. An examination of the fluid shows numerous daughter cysts, with their attached em-

bryos as well as many separate hooklets. The specimens were exhibited by Dr. Peters, and the hooklets were well seen under the microscope. A search of the literature so far reveals no other reported case of hydatid cyst of the pancreas.

Hereditary Valvular Disease.

Edw. R. Suader, in the Hahnemannian Monthly for December, discusses the question "Is valvular disease of the heart transmissible from parent to offspring?"

He presents a study of eleven families coming under his personal notice, and their history furnishes much food for thought along this line. In closing he says:

It is probable that the anatomical defects of an acquired valvular lesion can be transmitted from parents to offspring.

It is more than probable that the greater number of cases of what may be considered congenital valvular defects arise from an intra-uterine endocarditis.

That lesions are not always transmitted, even when serious, because (a) the disease that gave rise to the lesion has passed away and left only its monument in the parent; (b) because of nature's eternal tendency to preserve her normal types; (c) because of the possible nullifying influence of an unaffected parent; (d) because of the temporary or permanent absence of an active blood state in either or both parents capable of setting up an endocarditis.

That we cannot be certain that organic valvular disease will or will not be transmitted.

That a mother suffering from an acute or sub-acute blood state capable of inducing an endocarditis is liable to pass that blood state to offspring and induce a valve incapability if conception occurs at the time the blood state is active.

That we cannot yet give a positive opinion as to the exact liability of transmission to cardiac cases contemplating matrimony. We can only state the degree of probability.

That a practical deduction from a consideration of all these factors is that investigators of the present and future should devote more time to the determination of blood states capable of inducing valvular lesions and their modification by therapeutic measures.

Hemorrhagic Pancreatitis.

In the Boston Medical and Surgical Journal for November 29th, F. B. Lund reports six cases of hemorrhagic pancreatitis and discusses the surgical treatment.

He says that milder cases of acute pancreatitis or peripancreatitis recover both with and without operative intervention. Severer cases require operation, which should be performed early, for the following reasons: (1) Because the primary hemorrhage in itself (Flexner) leads to necrosis and disintegration of gland tissue, and the hemorrhage may be stopped and further necrosis both of fat and gland tissue prevented by gauze packing and adquate drainage. (2) Because the patient is in far better condition to withstand an operation early in the disease than later when weakened by suppuration in the lesser peritoneal cavity, and necrosis of much fat and gland tissue.

A certain class of cases in which the primary shock is so severe as to render operation out of the question must be excepted from the operative cases.

The mortality from pancreatitis will undoubtedly be high, but there is reason to hope that with early operation and adequate provision for lumbar drainage it may be considerably diminished.

As the diagnosis must, in a large percentage, be tentative, the first or exploratory incision should be made in the median line above the umbilicus. This incision may, in severe cases, be made with advantage under local anesthesia. On account of the weak condition of most of the patients rapid operatiug is essential. The great omentum must be traversed to reach the lesser peritoneal cavity. Masses of blood clot and necrotic fat should be rapidly evacuated. Further hemorrhages may be stopped by gauze packing. It will be generally impracticable to search for bleeding points.

Hyperidrosis of the Axilla.

In the New York Medical Journal for December 29th, Louis Kolipinski recommends the thermocautery in the treatment of hyperidrosis of the axilla.

He says that a local or general anæsthetic is unnecessary unless the patient is irrationally timid. The axillary base is washed and shaved. The thermocautery at a bright red heat is applied, with its flat side, from ten to twenty times to the space from which the sweat is seen to ooze, namely, the area covered by hair in the adult; the triangular groove below, when the arm is elevated, for about 2 inches; the posterior border of the armpit, especially at its middle, and the upper external border near the hairy centre. One-half or more of the superficies is turned into burns of the second and third degrees. The cauterizing is done in a very few minutes and the pain as indicated is not severe.

A dry bismuth or zinc-oxide dressing is applied, and the patient may resume his ordinary occupation in a few days.

Case.—A man of thirty-three, formerly a carpenter, but for the last four years employed at the Capitol in packing and shipping books and documents—work which requires considerable muscular exertion. The patient's general health is good. His father and an adult sister have the same abnormity in the skin function as himself. The hyperidrosis in the subject's case has existed eight years. Its intensity is not affected by the seasons, and profuse sweating of the armpits accompanies every species of active exercise. It does not appear when he is at rest or asleep. The armpits, when examined, are wet, and slender streams of sweat trickle down the sides of his body. His undergarments and sleeves, where in opposition to their parts, are always damp or saturated. If, after dressing, he attempts the shortest stroll this condition of things at once appears. He is right-handed and the secretion is more abundant on this side.

The patient submitted to the use of the cautery in the right axilla, and, three weeks later, the same treatment was applied to the opposite one. Examination was made two months after the first cauterization. He wore heavy winter clothing. The temperature out of doors was 60 deg. F. He had just accomplished a brisk walk of twelve blocks. His underwear was dry. In the right armpit was a certain amount of sweat secretion, of normal quantity for the circumstances under which the inspection was being made. There was a fair reappearance of axillary hair; the burnt spots showed as fine, pale red cicatrices. In the left axilla the hair was more scant. The red spots were larger and brighter, and there was no sweating at all.

His general appearance, weight, complexion and carriage all showed decided improvement.

Hysteria.

Geo. Adam, in the Pacific Medical Journal for December, in discussing hysteria says that the identity of electric and nerve force is established and so he gives the electropathology of the disease.

In regard to treatment he says that the bromides and other sedatives allay the hyper-irritability and thus tend to relieve some of the symptoms. Their action, also, on the exciting cause may be beneficial in some cases. But in the treatment of the main constitutional disturbance the bromides are certainly contraindicated.

To improve the defective insulating structure, thereby directing the nerve force into its normal channel, and to reseat the will in its physiologic control, are the fundamental indications to be met. The treatment, therefore, ought to be nutritional in character. Wholesome food, regularly taken to feed the hungry molecules, will go a long way to correct the depraved condition of hysteria. Tonics, such as strychnia, phosphorus, iron or arsenic, may assist, but only inasmuch as they regulate the nutrition. A proper exercise of the will power will aid in establishing the flow of nerve force in its normal course. In this connection it may be considered that the individual may first of all exist as an idea, and that the latter clothes itself with molecules in order to manifest itself. If the molecules of the whole body are collected and shaped into position by an idea, can not a little repairing be done by the same force?

Electricity fulfills a useful sphere in the treatment; stimulating a healthy metabolism it thus brings the molecule up to its proper potential; regulating the circulation it maintains that equilibrium of blood supply and of nervous activity which is essential to general and local health; promoting excretion it eliminates from the system the results of disintegration, and thus prevents anto-intoxication, an important factor in the causeality of hysteria. Locally, besides treating the exciting cause, the indications for which have to be met according to the character of the disturbance, electrical applications can be made with that tonic effect necessary in building up the molecular and histological element, which for delicate construction are the first to suffer under degenerative processes.

Electricity and other vibratory medicinal agents, such as music, may be employed to act on the cerebro-spinal nerves, so as to bring into an harmonious whole the frequently present discordancies existing between the frequencies of vibratory nerve centers, manifested as despondent moods, suicidal tendencies, and the numerous conditions partaking of a psychical pathology.

Heat Stroke and Heat Exhaustion.

This very seasonable topic is discussed by C. C. Hersman, in the Pennsylvania Medical Journal for December.

He says that we should carefully distinguish between heat stroke and heat exhaustion. In the latter the surface is pace, cold and relaxed with subnormal temperature in the former the surface is cyanosed, skin hot and rising temperature. Heat exhaustion requires rest and stimulants, head low and body recumbent. If able to swal-

low give at once an ounce of brandy and 20 drops of tr. opii. If unable to swallow give larger dose, per rectuum, or whisky and tr. digitalis hyperdermatically. No ice or bleeding. Heat fever is treated in different ways. Ice cold pack, cold douche. In India the patient is removed to the shade, cold water is thrown on him after removing all clothing. Throw cold water into the rectum. If depression comes on stimulate. Hypodermatic injection of quinine. If convulsions appear give hypodermic injection of morphine, but beware. If convulsions subside and the breathing is easy the morphine is doing good and may be repeated, but better await the effects of half grain until you are sure a third dose is necessary. The use of morphine is not contraindicated if using cold pack or other treatment. Sudden depression shows the patient passing into collapse. It is due sometimes to the treatment, so beware. Always be on guard to save the patient and to avoid reproach. You can place a patient on the floor, the ground, a gum blanket, and use a sprinkler with a good rose, not necessarily ice water. Don't shave the head, it will waste valuable time. Put ice to the head and not bottles to the feet. If there is no sprinkler at hand use the pump, the bucket, bath, anything to save time. When the temperature is reduced it will rise again. Use ice bags to the spine, and finally the temperature will stay down if the patient recovers and he may need stimulants. Bleeding may be of use. Louis XV was bled nine times and lived. Dr. Mitchell, of Philadelphia, lost 25 or 30 ounces of blood and recovered. Every ambulance should carry ice and every patient should be treated from the time he is found until he reaches the hospital. This utilizes the most valuable time and is often the only way to save life.

Heat Stroke as a Post-Operative Complication.

At this season of the year there is not much danger of heat-stroke bothering our surgical cases. But C. L. Gibson, in the Journal of the American Medical Association for December 29th, said while one must not be too ready to attribute to heat-stroke various constitutional disturbances after operations that might perhaps be the result of sepsis, iodoform poisoning or other causes, still he felt sure, from his own experience during the past summer, that heat-stroke is a real and an important post-operative complication. One case reported as an illustration of what he meant, was that of a boy who had reacted well immediately after the operation, but had developed on the following day a temperature of 104 F. and a pulse of 148, associated with delirium. The fever, rapid pulse and delirium had all quickly subsided under cold sponging, and the boy had made an excellent recovery without further incident. A second case had occurred on August 10, a day long remembered in the hospital, because of the oppressive heat of the operating room at that time. If the nature of this complication were recognized, the treatment would be evident. As a matter of prophylaxis such cases emphasized the importance of having a good circulation of air in hot weather, and where this could not be easily attained by the ordinary methods of ventilation, electric fans would be found a valuable axiliary.

Hemorrhoids.

In the Medical News for December 1st, Ellsworth Eliot describes a new operation for hemorrhoids. The patient is prepared as usual and after stretching the sphincter the hemorrhoids are allowed to protrude. Each hemorrhoidal area is treated similarly as follows:

Opposite the base of the hemorrhoid, parallel with and corresponding to the mucocutaneous junction, a curved incision is made and carried upward in the same plane as in a Whitehead operation beneath the pile-bearing area until the base of the hemorrhoid is reached. A second curved incision is then made in and through the mucous membrane, forming an ellipse with the first-mentioned incision and including within this ellipse any area of ulceration at the base of the hemorrhoid that may have developed as a result of the irritation to which the exposed surface of the mucous membrane overlying the hemorrhoid is subjected.

From the junction of the two curved incisions, that is, from each pole of the ellipse, an incision is carried vertically upward through the mucous membrane only and the resulting quadrangular flap of mucous membrane is reflected from the surface of the underlying hemorrhoidal area, having its base of blood-supply superiorly. After the incision of this flap of mucous membrane, the same vertical incision is deepened through the hemorrhoipal tissue proper, the resulting hemorrhage being slight owing to the direction of the incision, thus forming a rectangular mass of hemorrhoidal tissue which is transfixed at its base with stout catgut—if necssary with chromicised gut; the ligatures are then tied

tightly and the hemorrhoidal mass removed. The rectangular flap of mucous membrane is then stitched to the skin, and the retention of any discharge prevented by cutting the catgut ligature long and allowing the ends to protrude below between the sutures, thus acting as a drain. This same procedure is repeated in not more than two other places where the development of the hemorrhoids is most pronounced. At the conclusion of the operation, a dressing of sterile gauze is placed over the suture line, a large tube, surrounded by iodoform gauze having been previously introduced upward into the lumen of the gut to facilitate the exit of any gas or of accumulated fecal material.

By this method prompt union is usually secured, because the intervening portions of mucous membrane that have not been disturbed by the operation prevent the retraction of the flaps of mucous membrane that have been raised from the surface of the hemorrhoids. The situation of the suture line is also favorable to a prompt union, inasmuch as it is placed close to the anal ring and, therefore, is easily kept protected by the application of either sterilized or iodoform gauze. Sloughing of the flap of mucous membrane is very unlikely as the vascularity of the flap is most abundant and any pressure by the accumulation of the discharge is prevented by the drainage of strands of catgut which project below through the suture line. Should healing, however, take place by granulation, occurring throughout the entire field of operation, each resulting cicatrix would then be separated by a bridge of healthy mucous membrane which would effectively prevent the development of subsequent contraction and stenosis.

An objection may be raised to the effect that in those cases in which the entire circumference of the anal orifice is involved, a portion of the hemorrhoidal area is not removed by this operation. This objection obtains in only the most advanced cases, as after this procedure the intervening portion of hemorrhoidal tissue rapidly shrinks, for the reason that it has been subjected to the benefit of the stretching of the sphincter, and that its condition of venous engorgement is materially lessened by the division and ligation of those vessels supplying the hemorrhoidal area removed.

Another advantage of this procedure consists in the fact that it permits of the complete excision of all areas of ulceration at the base of the hemorrhoids and thereby lessens the possibility of subsequent infection, necessarily favoring, at the same time, prompt union of the divided parts.

Hyperemesis Gravidorum.

According to the American Journal of Obstetrics for December, Dirmose, in Weiner Medical. Woch., says that most cases of hyperemesis gravidorum are due to intestinal intoxication and the rational therapy is therefore intestinal disinfection.

This probably explains the good results often obtained from the administration of creosote or small doses of calomel. It is advised to discontinue nourishment by mouth and feed the patient entirely through nutritive enemata. Irrigation of the stomach and intestines with plain water or weak solutions of boracic acid or permanganate of potash is also indicated. With improvement in the patient's condition natural feeding may again be resumed.

Hospital Air.

The Medical News of December 22d, in quoting from La Rifor. Med., says that R. Binaghi gives the result of his experiments in the study of the atmosphere of the hospital and its relation to wound infection.

According to the theory that a relation might be found to exist between meteorologic factors and the number of germs in the air, analyses were made of the air of the operating room, wards and dispensary at frequent intervals from November to June, the variations in temperature and pressure of the atmosphere at the time being noted. Petri dishes with glycerin-agar were exposed to the air of the room to be examined at different distances from the floor and for definite length of time; after proper cultivation, solutions of the colonies in sterile water, were made and injected into the jugular vein of rabbits for tests and for control tests; of fifty-two rabbits inoculated, thirty-one died (50.8 per cent.), thirteen of these deaths being from staphyloeoccus infection. It was observed that the greatest impurity of the air was found in the dispensary, next in the wards, and, lastly, in the operating-room, giving a mortality respectively of forty, thirty. twenty-five, and fifteen per cent.; *i. e.*, the air of the dispensary contained the most staphylococci, while the air of the operating-room contained the least of these germs. The blood of the animal thus killed by inoculation was found to contain in addition to the staphylococci, the bacillus pyogenes fetidus; the bacillus coli; the bacillus typhi similis; the diplococcus of Fraenkel, and the bacillus mucosus. His conclusions are: (1) Staphylococci are the germs most frequently found in hospital air. (2) Their number varies and depends upon the number of people coming into and

going out of the room. (3) The influence of temperature and of atmospheric pressure cannot be definitely stated, but the author's investigations proved that the germs were more frequent in the presence of high temperatures and pressures. (4) There would seem to be much justification for the idea of wound infection from atmospheric air, hence the importance of plenty of light and air in hospitals, especially in the operating rooms, and the advisability of having as few people present at an operation at possible.

Histology of Adenoids.

According to Norval H. Pierce, in the Laryngoscope for November, adenoids are a hyperplasia of tissues normally present. This hyperplasia should only be looked upon as pathological when it interfered with the functions of other parts or itself became secondarily diseased. These growths are of two great varieties—the diffuse and the stalactite. The surface may be either coarsely granular or nearly smooth, or more or less fissured. The ciliated columnar epithelium is cuboid or pavement-shaped in places, owing to pressure. Beneath this epithelium is a delicate basal membrane. The principal part of the mass is composed of lymphoid nodes identical with the solitary follicles of the intestine, and a reticulum holding together these nodes, together with follicles which open on the free surface of the mucosa. Subsequently the lymphoid nodes become atrophied by pressure from contraction of the maturing embryonic connective tissues. These growths were frequently affected by tuberculosis and other infections.

Iliac Colostomy.

According to the Medical Age for December 25th, Gangolphe in Revue de Chirurgie offers the following plan for performing iliac colostomy with the double ligature.

He first makes a small incision to prevent the escape of intestinal coils which are not wanted, and then seizes a portion of the sigmoid flexure where the mesentery is largest. in this manner facilitating intestinal resection and anastomosis when the artificial anus is no longer desired. A double ligature is passed through the mesentery at a point three or four centimeters from the gut. The threads are crossed and each tied as tightly as possible, thus including between them a section of the intestine five to six centimeters in length. The constricted portion is elevated a short distance above the skin, and the visceral portion united to the parietal layer by suture. From forty-eight to seventy-two hours later the constricted mass is opened widely with the thermocautery and the ligature is cut. The author has had no serious symptoms where this procedure has been followed. Gangolphe has had nearly 20 such cases, and none of his patients vomited before the ligatures were divided. There were no local complications in any case, and the permanent results were all that could be desired, there being two good openings at the level of the skin, and well separated.

Immature Cataract.

In the Journal of the American Medical Association for December 8th, G. E. De Schweinitz says that certain lenticular opacities, most often situated in the naso-inferior quadrant of the lens, occasionally are practically stationary and may be designated "non-progressive." They do not handicap the patient's ocular abilities, and may with propriety be separated from the class to which the name incipient cataract is ordinarily given.

Certain lenticular opacities undoubtedly depend, as Risley and others have shown, on what may be designated "disturbances of the choroid" as apart from active and actual choroiditis; and their progress is sometimes apparently checked by measures —optical, local and general medicinal— which restore the choroid coat to normality. Such measures do not, however, remove from the lens the opacities which have already formed when the patient comes under treatment.

Certain lenticular opacities which appear in association with diabetes mellitus, nephritis, lithemia and arteriosclerosis, particularly the last two diseases, are sometimes apparently retarded by measures which are suited to the patient's general condition in connection with local and optical therapeutics; but these measures never dissipate the lens-lesions already present.

Certain lenticular opacities produce not only prodromal myopia but very high degree of astigmatism, the correction of which may result temporarily in a surprising improvement in visual acuity.

Certain lenticular opacities cause an obscuration of vision that may be largely dissipated temporarily by providing the patient with glasses moderately tinted which give the best visual acuity during mydriasis and maintaining this mydriasis with a mild mydriatic. Sometimes, under these circumstances, the mydriasis seems to hasten maturation; this fact should be explained to the patient.

Certain lenticular opacities, especially in the form of striæ of refraction, cause an obscuration of vision which is somewhat relieved by maintaining a mild myosis with weak solutions of one of the myotics.

If the vision of eyes suffering from incipient cataract of the nuclear type is improved by mydriasis, this is not a sufficient indication for optical iridectomy, unless the patient finds by observation that the increased visual acuity, as noted by test-type examination, is also advantageous in pursuing his ordinary occupation.

The extraction of unripe cataracts is preferable to any of the ordinary operations for ripening cataract.

There is no evidence that electricity has the slightest influence in checking the rate of progress of incipient cataracts, or in dissipating the opacities which have formed.

If there is any evidence that massage of the eyeball favorably modifies the rate of development of cataract it is still very insufficient; there is some evidence to show that massage sometimes hastens the opacification of the lens. The subject demands further investigation.

There are no "specific remedies" for the treatment of cataract, and there is no reliable evidence that drugs exist which cause the absorption of partially or fully formed cataracts.

All lenticular opacities, unless perhaps those which belong to the so-called non-progressive group, should be regarded as indications for a thorough investigation of the patient from the general as well as the ocular standpoint, and for an employment of remedial agents—optical, local, medicinal—according to the findings.

Influenza.

The Medical News for December 15th has a symposium on influenza. J. M. Mosher discusses influenza and the nervous system, and he concludes that:

The infection of influenza produces a toxin which has a severe and selective action upon the nervous system.

The immediate effects of this toxin are shown in affections of the peripheral nerves and the cerebrospinal centres.

The remote effects are manifested in lowered tone of the nervous system, predisposing to other diseases.

These ensuing diseases arise in weakened or predisposed organs, giving rise to the different classes of "respiratory," "alimentary," "genito-urinary," and "circulatory" forms of influenza.

Postinfluenzal insanities are also a complication of the postinfluenzal states of nervous debility, in patients mentally predisposed.

The postinfluenzal insanities are not essentially different from other insanities due to vital depression.

The prognosis of influenzal affections is generally good, under proper management.

Exception to this is in influenzal affections arising during the course of other severe diseases, as pneumonia and general paralysis, and during senility complicated by mental or physical deterioration.

Exstrophy of the Bladder.

In Medicine for December A. E. Halsted reports a case of exstrophy in a male child five years of age.

He operated after Frank's method, making a vescosigmoidal anastomosis with a deculsified bone coupler.

The operation was done under chloroform with patient in Trendelenberg's position. A curved incision circumscribed the upper margin of the defect, extending downward on each side toward the horizontal rami of the osso pubes to a point about opposite the urethral openings. This incision outlined a flap consisting of the posterior bladder wall, being convex above and having its base on a line with the ureteral orifices. On turning forward this flap, the sigmoid flexure of the colon was easily identified and drawn forward into the wound. At a point just bolow where the coupler was to be inserted, a posterior serous surface of the flap was united to the sigmoid by two sero-serous sutures of fine catgut. The bladder was now incised for a distance of about one and three-fourths centimeters, longitudinally, the incision beiug placed at a point about midway between the urethral orifices and extending a short distance above a line drawn between these two points. After the introduction of a purse-string suture around this incision, a similar one was made at a corresponding point in the sigmoid flexure, the gut first being emptied and two Murphy intestinal clamps applied above and below. The coupler was now introduced and the purse-string tied. A new bladder, in the cavity of which was the coupler, was now constructed by suturing from above downward the flap consisting of the posterior bladder wall,and by utilizing the mucous membrane covering the upper part of the rudimentary penis and that corresponding to the defect in the public arch for a second flap,which was turned upward and united to the first by a series of interrupted Lembert sutures, The edges of the abdominal defect were then freshened and the recti muscles brought together

by interrupted sutures of silk-worm-gut, so that only a small portion of the anterior surface of the new bladder remained uncovered. The lower part of the defect remaining unclosed was loosely packed with iodoform gauze. The sphincter ani was stretched so as to allow the free escape of urine, and the wound dressed in the usual manner, the abdomen first being supported by strips of adhesive plaster.

The time required to complete the operation was nearly two hours. The chile was suffering from profound shock when taken from the table, but rallied somewhat during the night. Urine was voided through the rectum, at intervals of about two hours. There was apparently no escape of urine through the line of suture in the bladder. Death occurred sixteen hours after the operation. The post-mortem examination of the abdominal organs, made by Professor Futterer at the Northwestern University Medical School, showed that there was not the slightest ovidence of peritonitis,nor was there any leakage from the new bladder. There was firm agglutination of the serous surfaces held together by the coupler. Death undoubtedly resulted from shock due to the prolonged operation. This can be avoided in future operations.

Iodoform Poisoning.

The Medical Age for December 25th, says that Anschutz reports a case occurring in Mikulicz's clinic in which the patient died with symptoms of iodism.

He had already received on two former occasions injections of eighty and ninety grammes of a ten per cent. solution of iodoform in glycerin into an abscess cavity, when several days after a last injection—this time of 100 grammes (same solution)—he showed symptoms of intoxication characterized by general apathy, drowsiness, pustulous eruption about the nose, etc. Anschutz ascribes the fatal termination of this case by poisoning to a cachectic condition superinduced by total caseous degeneration of the suprarenal bodies, and warns against the uncautious exhibition of iodoform-glycerin in large dosage.

Kyphosis of Pott's Disease.

In the New York Medical Journal for December 22d, A. M. Forbes recommends the combination of a plaster-of-Paris jacket with a brace to correct and retain correction of the Kyphosis of Pott's disease of the spine. He claims that this combination passesses a greater and sure leverage than either a jacket or a brace alone. The combination is preferable in low Pott's disease as a jacket only controls these cases but slightly and the brace alone is not absolutely sure.

Apparatus suitable for the fixation of the head or shoulders can be used in desirable cases, and the writer, feeling the advantage of the latter, especially in the disease above the eighth dorsal vertebra, has used either these or the "Whitman shoulder brace" in ninety per cent. of his series of cases.

This appliance lasts longer than the jacket without a brace, and is curative from the day it is applied until it is removed—thus markedly differing from the ordinary plaster-of-Paris jacket, which seems to lose its efficiency with age.

It enables the surgeon to apply a much lighter jacket than that ordinarily used.

It is certainly advantageous for those cases of "Pott's" in adults in which the surgeon considers plaster suitable: since a jacket, to be efficient for these patients, must necessarily be very heavy.

In patients suffering from oncoming paralyses or pareses, in whom the surgeon desires spinal immobilization and extension as well as recumbency, this appliance is naturally to be preferred to a jacket alone, especially when it is remembered that the straightening of the kyphosis has often resulted in immediate improvement.

Excoriations over the kyphosis will not follow the use of this method, and, in cases where these have already existed, their dressing may take place through the fenestra in the plaster over that part.

It seems certain that jackets neither prevent the formation of a kyphosis, nor its increase when present. Consequently, this combination should be used in those cases which the more constant immobilization of plaster is required instead of a brace.

Since the investigations of Lovett, of Boston, as set forth in an article entitled The Mechanics of Lateral Curvature of the Spine it has been suggested that the prevention of extreme lumbar lordosis may help the correction of dorsal kyphosis, the proof of which theory would tend to demonstrate, at least from a theoretical point of view, the superiority of this corrective apparatus over those now in general use.

Infectious Nephritis Following Mumps.

According to the Annals of Gynecology and Pediatry for December, W. O. Xander presented two cases to the Philadelphia Pediatric Society who had been the subjects of what was thought to be infectious nephritis secondary to mumps.

They were cousins who were living together under the same circumstances. Both

were about eight years old. They had had measles and whooping cough some time before, but there was no history of scarlet fever, and absolutely no evidence of recent scarlet fever at the time of their illnesses. One boy was seen when he had been sick for about a week. He had severe general œdema; his urine contained one-third of albumin by bulk, free blood, and epithelial and blood casts. No cause of the nephritis was evident. A week later the cousin was taken sick with similar though milder symptoms. Investigation at this time brought out the history that both the boys had had mumps a few weeks before, and that there was a local epidemic of mumps in the neighborhood. Both boys did well under treatment, one regaining entire health and the other seeming well excepting for the persistence of slight albuminuria. It was noted that one boy in particular had enlarged cervical glands and adenoids.

Leukemia.

In the Medical Standard for December, A. R. Edwards in a lecture on myelogenic and lymphatic leukemia say that the treatment in these cases must be more or less empirical as we do not know the real cause of the disease, and cannot therefore combat the exciting factor. Various remedies and measures have been used. The attempt has been made to extirpate the first growth of glands in order to check the disease. The spleen has been extirpated, but the mortality from this operation has been excessively high. Those cases which have survived have progressed despite extirpation.

Next the dietetic and hygienic treatment, with which we cannot accomplish much. We must always regulate the dietary of the patient, bearing in mind that the first requisite in this treatment is a sufficiency of nitrogenous foods. There is but one remedy which apparently exercises any influence on the disease, arsenic. The general symptoms are lessened, the number of leucocytes decrease and also the size of the spleen. You must, however, be careful with arsenic as it may produce severe gastrointestinal symptoms, and wherever they exist to a marked degree, the prognosis is more unfavorable. You may, therefore, harm your patient by the irrational administration of arsenic. It may be given by mouth or rectum or by the injection into the skin or glands of well diluted Fowler's solution. Other methods of treatment are not so satisfactory. The administration of extract of spleen or lymph glands may in some cases give a slight improvement, but no cure. Injection of salt solution has been tried but had not been very satisfactory. Some improvement has followed the administration of iron and arsenic and the inhalation of oxygen. Some cases may temporarily improve, but almost invariably the disease advances uninterruptedly till death intervenes from exhaustion, hemorrhage, gastrointestinal disorder or intercurrent infections.

Lesion of the Brain.

In the Kansas City Medical Index-Lancet for December, John Punton discusses the principles of diagnosis of lesions of the brain. He divides the symptoms arising from brain lesions into two classes, general or indirect and special or direct.

The former are those common to various kinds of brain disease irrespective of location, are are due either to an increase of the intra-cranial contents as by the growth of a tumor and consequent pressure—or to some other interference with the normal functions of the brain.

They therefore give no exact evidence as to the special region of the brain effected, but merely indicate that the brain is diseased.

They consist of headache, vertigo, delirium, coma, vomiting, optic neuritis with or without blindness, insomnia, photophobia, general convulsions, digestive disturbances, and all forms of mental irritability. Special or direct symptoms on the other hand depend entirely for their production upon the specific region of the brain invaded by the lesion. For convenience they may be arranged into 4 great classes, viz:

1. Disturbances of motion, commonly manifested by the various forms of paralysis and spasms.

2. Disturbances of sensation on those represented by pain, touch, varying degrees of temperature and muscular sense.

3. Disturbances of the special senses in which we find defects of sight, hearing, smelling and tasting.

4. And disturbances of memory and defects of speech represented by the various forms of Aphasia.

In all lesions of the brain the two most important elements in the diagnosis are first, its seat, and second, its nature and character. These are determined as already stated by means of the symptoms—their mode of onset together with other data belonging to the clinical history.

If the morbid process is one of sudden onset only those symptoms that come on together can be regarded as due to the same lesion—at the same time remembering that two lesions may exist simultaneous by each

of which may present their own individual symptoms. Having thus determined what symptoms developed together, and as due to a lesion the next step in the diagnosis is to enquire what part of the brain when injured is capable of producing such a group of symptoms.

Methylene Blue in Dysentery.

Berthier, in L'Echo Med. du Nord for October 14th, as reported in Treatment for December, recommends enemas of methylene blue in the treatment of dysentery.

An enema of ½ to 1 quart of warm water containing 1½ to 2 grains of methylene blue in solutions, should be administered four times a day. It should be given immediately after a motion of the bowels,and with the patient in such an altitude as will facilitate the penetratiou of the injection well into the large intestine. It should be administered slowly and little by little, the patient being requested to retain it as long as posaible.

The methyline blue is only absorbed in minute quantity by the rectum, the urine becoming only slightly bluish or greenish in color. Under this treatment the smptoms diminish rapidly, and the stools soon show a reappearance af bile. This latter offect is according to the author, due to the analgesic action of the methylene blue. The absence of bile from the stools in dysentery is, he believes, a reflex phenomenou resulting from intestinal irritation.

In addition to its analgesic action,methylene blue acts as an antiparasitic and cholagogue, and exerts its influence without producing irritation or toxic effects.

Menstruation.

Iu the Richmond Journul of Practice for December, Geo. J. M. Gelmann considers what is normdl menstruation.

He says that the menstrual period proper is characterized by an intensification of all vital energies, followed by a depression, which appears with the coming of the flow and this is the phase ordinarily termed "menstruation." Under ideal conditions and in perfect health, the physiological status is such that this epoch, preceded by a day or two of heightened activity, is marked by a moderate lassitude,mental and physical, the flow persisting for from four to five days, and recurring at regular intervals of about 28 days. It is a period of heightened susceptiblity, and so sensitive a barometer that it quickly records any variation from the normal. Excitement, exertion or fatigue, mental or physical, are promptly indicated by variation in this function, and in our every-day life such disturbing elements constantly occur, so that conditions actually existing vary greatly from this ideal.

The average period of the average girl in average heaith presents very different features: regularity in 50 per cent, only; recurrence every 28 days in 30 per cent.,varying most frequently from 26-42 days, 45 per cent., being over 28. Duration varies from two to seven days, averaging four to aix.

From 66 to 70 per cent. suffer more or or less, the number of sufferers varying, according to age and intensity of occupation, between 30 and 90 per cent. Lessened ability for exertion. mental or physical, is admitted by 60 per cent.; some few are habitually incapacitated from work, and 30 per cent. occasionally.

The functional condition of the girl in good health, under modern conditions of life, is by no means the ideal one: and, in fact the functional health of the Amerecan girl, the coming mother of American men, is far from what it should be by right of inheritance and surroundings. This fact we must recognize, we must face. Upon physician and educator devolves the duty of study and correction of the evil.

Diphtheritic Paralysis.

E. F. Trevelyan in the Lancet for November 24th, as reported in the New York Medical Journal for December 8th, gives the details of six cases of diphtheritic paralysis seen by him. After discussing the features of interest in each case, he takes up the questions of albuminuria and ataxia in diphtheritic paralysis, and the prognosis and treatment of this complication of diphtheria. Diphtheritic albuminuria has no other relation to diphtheritic paralysis than that both complications are more prone to occur where the diphtheritic intoxication is most intense. Ataxia was present in three of the six cases, which is not surprising, as diphtheritic paralysis is due to an affection of the peripheral nerves, and the association of ataxia in such affections, wherever found, is well recognized. The diagnosis of diphtheritic paralysis is difficult only in those cases where the nature of the sore-throat has been overlooked. The prognosis of the localized, and even of the generalized, forms is good, but that of the cardio-pulmonary form is bad and generally very bad. Other things being equal, the presence of albuminuria makes the prognosis more grave. The author believes that where liberal and early doses of antitoxine are used paralysis surpervenes only in the severe cases. All authors are in accord as to the

great value of rest in the treatment of diphtheritic paralysis. Other means are medicinal stimulation, electricity and massage.

Influenza.

In the Medical Record for December 8th, A Jacobi, speaking of the treatment of influenza, says that there is no specific. He recommends the following plan of treatment:

A purgative dose of calomel should be given, as the bowel was the principal point of attack in very young infants. The patient should be kept in bed in a room having a temperature of 70 deg. F. or a little higher. The diet at first should be light. Alcohol and other stimulants were required only in selected cases, and in this respect influenza differed from certain other infectious diseases, notably typhoid fever and diphtheria. If the temperature was too high, cold water was not indicated, either as a bath or a pack. The irritative cough was apt to be aggravated by cold water. When there were much muscular pain and restlessness a warm bath was often beneficial. A hot bath, except a very short one in the event of threatened collapse, should be avoided. Influenza pneumonias did better with warm than with cold packs. In the German collective investigation reports some observers praised quinine highly, while others expressed great disappoietment with its action. When the vomiting was severe, rectal alimentation was indicated. Peptones and liquid albumins were readily absorbed in the colon, which even in the smallest infant was made accessible by raising the hips, but not raising the irrigator more than a foot above the anus. Dextrinized starch would add to the nutrient value of the enema. The best relief from medicines was secured by the use of morphine. A tablet containing gr. 1-60 of morphine should be placed in the mouth of a child from two to four years old, there to be absorbed, or one-half drop to two drops of Magendie's solution might be given in the same manner. The treatment of the symptom fever offered no hope of shortening the disease, but it contributed to the patient's comfort and did not interfere with recovery. To be satisfied with depressing temperature was a great mistake, but to allow influenza or any other disease to run its course with no attempt to combat the obviously injurious effects of fever on the system was equally reprehensible. Continuous fever, even though moderate, should not be allowed to run indefinitely without any attempt to check it. Nervines and analgesics were valuable aids to bathing, or as substitutes for baths, and they usually increased the comfort and favored metabolism. He had formerly asserted that acetanilid should be preferred among the poor, because of its low price; antipyrin when solubility was important, and phenacetin was preferable to either when it could be given by the mouth, because of its superior action on the brain and on the skin. Antipyrin, when employed during normal conditions, increased the pulse and blood pressure; hence it was contraindicated in hæmoptysis. It was not a nervine, as it acted chiefly upon the blood-vessels. To get the antipyretic effect the dose should be repeated in two hours. In general, its action was favorable. Phenacetin resembled acetanilid, but was milder. The dose should be gr. 1-4 to 1-2 for infants and young children. Salipyrin should be given in twice the dose of antipyrin. It was usually better borne than antipyrin by neurotic persons. In using these drugs it should always be borne in mind that influenza showed a strong tendency to prostration and heart debility, and hence when there was any indication of such an occurrence these remedies should always be guarded by the coincident administration of caffeine benzoate or salicylate. This was preferable to the use of alcoholic stimulants. When caffeine unpleasantly excited the brain it should be replaced by camphor in doses of gr. iss.–vi. Camphor was soluble in four parts of sweet almond oil. A most useful though little used cardiac stimulant was Siberian musk. The ten-per-cent. tincture should be in doses of five to ten minims every half hour for eight or ten doses. This remedy had many times tided his cases over desperate crisis.

Malaria and Mosquitoes.

According to the International Medical Magazine for December, Tomaschewitsh opposes the latest theory about the transmission of malaria by mosquitoes by the following facts:

In Africa there are malarial districts in which no mosquitoes are found. In Northern and Central Russia mosquitoes are absent for 9 months in the year, and yet malaria is prevalent during the entire year. In the Russian army malaria was especially prevalent in the fall of 1897. Among the soldiers sationed in Vladimir there occurred 833 cases of malaria during 1897, 1898 and 1899. Of these 72 cases occurred in January, 72 in February, 70 in March, 88 in April, 104 in May, 74 in June, 70 in July, 51 in August, 57 in September, 47 in October, 53 in November, and 98 in Dscember.

Mycosis of the Throat.

In the Colorado Medical Journal for December, F. E. Waxham reports a case of mycosis of the throat and given his method of treatment.

He says that the disease resists all ordinary medication.

Our strongest antiseptics have little or no effect. This is from the fact that the roots of the fungus are deeply imbedded. The disease may be eradicated by the careful use of chromic or muriatic acid, but by far the most satisfactory and effectual mode of treatment is by the galvano-cautery. Indeed this is the only treatment that should be considered. After the mucous membrane has been anaesthetized with cocaine each mycotic tuft should be deeply cauterized with the galvano-cautery needle. Three or four tufts may be thus destroyed at each sitting and the process repeated every three or four days until all have been exterminated. A mild alkaline antiseptic gargle or spray should be used between the sittings to allay the inflammation produced by the cauterizing. Treated in this manner there will be no return of the disease.

Nephorrhophy.

Chas. P. Noble in the Journal of the American Medical Association for December 15 describes his method of operating tor movable kidney.

He says that the incision of the proper capsule of the kidney and its separation over a greater or less area from the external border of the kidney, as practiced by Tuffier, Edebohls and others, would seem to be unnecessary. The only advantage claimed by its advocates is that it favors the permanency of the fixation of the kidney. A distinct objection to the procedure is that it promotes capillary oozing from the renal vessels. By the formation of clots in the depths of the wound suppuration is promoted. On the ground that it was both unnecessary and harmful it was abandoned by the writer after its employment in three cases.

The substitution of gauze packing for fixation sutures and the reliance on granulation tissue to fix the kidney in position, as advocated by Beinebott, Senn and Deaver, would seem to be a distinctly retrograde step. The allegations of the supporters of this latter method are in direct contradiction to the results recorded in this paper. If the latter method is to meet with general approval and adoption, it must be because its advocates can show that the results secured by it are better than by other methods heretofore employed. The following objections to the method immediately suggest themselves: The period of convalescence is much prolonged. The change of dressings when the gauze packing is removed and replaced is painful. Local infection and suppuration are invited by the very nature of the open-wound treatment, with the risks always attendant on a suppurating wound, and especially with one in connection with so important an organ as the kidney.

He makes the following recommendations. Careful discrimination in diagnosis in order to separate cases in which movable kidney is a coincidence in a case of neurosis from those in which it is the cause of local and reflex symptoms.

Resort to the rest cure for cases of slightly movable kidney, especially in young women.

The employment of symptomatic treatment in cases in which the relation between the movable kidney and the nervous symptoms present is uncertain. Nephrorrhaphy should be employed in these cases only after non-operative measures have failed to afford relief.

The immediate resort to operation in those cases in which local symptoms, such as pain, sense of weight, or symptoms of strangulation, are present, and when the examination of the urine shows indications of congestion of the kidney, such as the presence of hyaline casts or albumin.

Nerve Force.

J. Emmet O'Brien in the Pennsylvania Medical Journal for November traces some analogies between nervous and electrical mechanism, He says that nerves are constructed like electric cables and are insulated, distributed and arranged like fine electric conductors.

Their purpose and use are the same as the purpose and use of electric conductors, namely, communication from point to point.

They convey some form of force.

It is probably electricity, because:

Electricity is always present when they act.

Because electricity is the form of force that would do the work required.

Because it is the form of force that would work with such construction.

Because the terminal and central mechanisms connected with the nerves correspond to the terminal and central mechanisms connected with electric system of communication and do similar work in sending, receiving, relaying, switching, transforming, accumulating, retarding, dis-

charging, concentrating, distributing and translating impressions.

Finally, because electricity is the only form of force that we know of that would do all the work required with such construction of conductors and of terminal mechanisms.

He therefore concludes that nerve force is electricity; that it is produced in the nervous system by chemical processes analogous to those which produce heat in the general tissues, i. e., oxidation: and that it would advance knowledge of the nervous system and its functions to acknowledge this proposition at least as a working hypothesis.

Pathology of Diabetic Coma.

According to the Maryland Medical Journal for December, Karl Grube has an article on the pathology of diabetic coma in the Arch. f. Exp. pothol.

To test the assertion of Sternburg, that diabetic coma is due to the presence of beta-amido-butyric acid in the blood, the author studied graphically the changes in respiration and circulation brought about by the injection of this substance into cats. Coma, or a comatose condition, was attained in every case. The respiration was markedly affected, and Grube thinks in an exactly parallel manner to the characteristic respiratien of diabetic coma in man. The heart-beat became stronger and the blood-pressure high. In the urine acetone was constantly noted. Grube believes that this coma caused by beta-butyric acid in cats is similar to ordinary diabetic coma.

Nasal Polypi.

E. B. Gleason, in the Medical Council for December, in discussing nasal tumors, says that if possible polypi should be removed with a nasal snare, as this instrument causes the least amouut of suffering.

However, it should be borne in mind that nasal polypi are absolutely devoid of sensibility; but that the sides of the nose as the result of the presence of polypi, are often exquisitely sensitive and, therefore, the parts should be thoroughly cocainized in order to prevent violent attacks of sneezing interferring with the manipulation of the snare. When a number of polypi are present their place of attachment should be ascertained by means of a probe and the most anterior one hooked forward to facilitate placing the wire loop about its neck. After the snare is in position, the wire loop may be tightened somewhat rapidly until the polypus is cut through. This procedure is ordinarily painless and nearly bloodless, and the polypi may sometimes easily be removed one by one until the nose is free from them. After the polypi have been removed, powdered caroid should be dusted freely on the stumps in order to digest and destroy any dead tissue or any portion partly devitalized by the pressure of the wire loop. It is claimed that pepsin, papoid, caroid and similar substances have the power to digest polypi. It is very doubtful if any of these substances have the power of digesting any living tissue; but they promptly digest and liquify the portion of stump of a polypus that the snare has partly or wholly devitalized, and hence make a most excellent dressing immediately after a polypus operation.

Old-Time Treatment of Typhoid Fever.

In the Pennsylvania Medical Journal for November, W. H. Hartzell gives a resume of the old-time treatment and result in typhoid fever.

He aivides this time into three periods. The first, from its birth to 1860 or very close thereto, when the digatalis quinia, iodide of potassium, blood letting, saline laxatives and "what not" formed the principal medicament, or what may perhaps be more properly called the indifferent treatment; here we have a mortality of 25 to 30 per cent., or aa average of 27 to 28 28 per cent. The second period of shorter duration perhaps only a few years, at least not over 5, up to 1866, the time of Jurgensen's publications,as here we have an incomplete antipyretic treatment, and a death rate of 16 per cent. And the third period to 1875, any results later than this could hardly be called "Old Time Treatment." Under a systematic antipyretic treatment we find an average of 8 per cent. To-day Brand, of Europe, boasts of a 1 per cent. mortality; this country is still hovering between 7 and 8 per cent. While the medical profession has made rapid strides in advancement in every direction within the last decade or two, and important discoveries have been made in the cause and propagation of typhoid fever, the result in the modern treatment has hardly kept pace.

Placenta Previa.

Francis D. Donoghue, in the Boston Medical and Surgical Journal for December 6th, advocates the treatment of certain cases of placenta previa by cesarean section and reports a successful case.

He says that the greatest mortality, both fetal and maternal, is obtained in cases of complete previa. Depaul reports 25 cen-

tral with a maternal mortality of 56 per cent, Jardine reports 12 complete with a maternal mortality of 16 2-3 per cent and a fetal mortality of 66 2-3 per cent. The second deduction from reported cases shows that in primipara the firmness and resistance of the tissues render quick operative interference difficult. A source of great danger is found in a rigid os uteri. Read reports 39 cases where the condition of the os was given as rigid. These showed a maternal mortality of 33 per cent and a fetal mortality of 70 per cent. In cases of contracted pelves the greatest death rate is not obtained in the major degrees of contraction, but where there is disproportion between the size of the fetus and the size of the pelvis. Malpositions of fetus requiring operative interference, and cases where the cord is prolapsed, show high mortalities.

If we accept the foregoing deductions as correct it would seem that section, in preference to other operative interference, is indicated in: (1) Cases of complete previa; (2) cases of previa in primiparæ when signs of fetal or maternal exhaustion are evident; (3) when the condition of rigid os is present; (4) where there is a history of previous operative delivery; (5) in transverse positions and in cases of prolapsed cord, if the cord is not easily returnable.

Peritonitis from Perforation of the Stomach Wall by a Toothpick.

According to the Medical Record for December 8th, Abbe reported a case of this kind to the Practitioner's Society on November 2d.

The patient was a man aged fifty years who had suffered for two months from symptoms closely resembling those of gastric ulcer, to-wit, pain and tenderness in the epigastrium, more severe after eating, always coming on between meals and passing away entirely before the following meal. Two weeks before operation the pain became much worse, and was accompanied by nausea and vomiting.

On examination the abdomen was found to be distended, the epigastrium hard and full, and there was muscular rigidity of the upper recti and on the right side of the lower half. The diagnosis of appendicitis had been made before Dr. Abbe saw the patient, because of tenderness in the lower abdomen, which was more marked on the right side. The epigastric condition, however, clearly indicated perforating ulcer. The patient had a temperature of 104 deg. F., and his general condition was such that an immediate operation was indicated. An incision was made above the navel and a matted mass of intestine uncovered, from which protruded the blackened end of an ordinary wooden toothpick; the other end of the toothpick was still embedded in the ulcer of the stomach wall. No gas was noticed in the foul abscess, which was still confined by the matted omentum, but spreading downward to the navel. The wound was packed and left open. The temperature was normal on the sixth day, and prompt recovery followed.

In connection with this case, Dr. Abbe exhibited the toothpick. The patient had no recollection of ever having swallowed it, and had never been intoxicated, so as to have the swallowing occur without his knowledge.

Prolapse of the Umbilical Cord.

According to the New York Medical Journal for December 8th, M. Commandeur in Province Medicale for November 10th, says that prolapse of the cord causes a high fetal mortality, about 30 per cent.

The mechanism of the accident is not always the same. The cord may fall between the head and the pelvic wall when the head is engaged; or between the head or another fœtal part and the contracted or retracted ring of Baudl, when, the head not being engaged, an extensive bag of amnotiic fluid fills the lower segment of the uterus, keeping the head away therefrom. The three principal means of attempting to save the child are: (1) manual reduction, which is difficult and leads to rupture of the membranes—it is impossible when the bag of membranes remains tight; (2) rapid manual dilatation followed by extraction—this is the operation of choice when the cervix and lower segment of the uterus are easily dilatable; (3) the use of the bags of Champetier de Ribes applied between the membranes and the uterine wall, when the cervix and inferior segment are not sufficiently prepared for rapid dilation. This method hastens the delivery and mechanically reduces the cord.

Phosphorus Poisoning.

W. E. Newey, in The Lancet of September 22, as reported by Medicine for December describes the case or a man who, while under the influence of alcohol, took a small quantity of rat-killer.

Immediately thereafter he had violent pains in the stomach and vomited freely, from the latter having some relief. On the following day he dressed and walked about, but on the third day was taken much worse and was found by the medical man

who was summoned to have a normal temperature, and to be quite conscious and coherent. There was constant vomiting, thirst, and great pain in the stomach and abdomen. The vomitus consistəd almost wholly of altered blood,and the stools were very dark. One week after swallowing the initial dose the patient died.

The post-mortem examination, made 24 hours after death, showed no signs of putrefaction, though the weather was very warm. The circumference of the neek bore the appearance of having been stained in a deep solution of Prussian blue. The eolor was well distributed and was very intense. The arms and legs showed an icteric tiuge; their superficial veins looked as though they had been injected with a solution of Prussian blue, and were beautifully mapped out. The stomach contained a half-pint of liquid blood; its walls were thick, and were of a deep blue color, with ulceration and softening. The intestines showee signs of an irritant poisoning and were deeply pigmented, the contents being dark and pitchy. The transverse colon was intensely inflamed and the fat of the great omentum showed bright extravasations of blood. The lungs and liver were colored a deep blue.

Pulmonary Tuberculosis.

Homer M. Thomas, in the Medical Times for December, writes of the value of antiseptic nebulæ in pulmonary tuberculosis. He says that by their use the respiratory capacity, so limited in tubercular patients, is increased.

The catarrhal condition of the air-passages is diminished, thereby aiding a better introduction of air into the lungs.

The pulmonary passages are kept in an aseptic condition and the danger of new bacilliary invasion minimized.

The marked relief of cough and dyspnœa.

The alimentary tract is undisturbed by drugs, giving ample opportunity for the increase of vital resistance by suitable diet and constitutional treatment.

The treatment of pulmonary tuberculosis by the inhalation of antiseptic nebulæ is rational and practicable.

Phosphorus in Scurvy.

In the Pacific Coast Journal of Homeopathy for December, F. F. Laird gives some observations upon the action of phosphorus in scurvy.

He says that for a drug to be homeopathic to a given disease, both must induce their symptoms in a similar manner as to pathological changes and the time required to produce them.

Phosphorus and scurvy both induce fatty degeneration of all tissues, with consequent multiple hemorrhages; and in both the process is essentially chronic. Hence, phosphorus is the true homeopathic similimum to scurvy.

Phosphorus bears the same relation to scorbutic conditions as quinine to malaria and iron to anæmia—i. e., the pivotal remedy.

Arsenic, mercury and sulphuric acid are, in the order named, the nearest analogues of phosphorus.

Rachitis and infantile scurvy have a common origin and hence should find a common remedy.

In chronic poisoning, hyperplasia of connective tissue (i. e., cirrhosis, hepatic and gastric) is as truly an effect of phosphorus as is fatty degeneration.

Scorbutus, as a rule, is perfectly amenable to dietetic treatment, but in childhood frequently and urgently demands a curative drug.

Post-Febrile Insanity.

Frank P. Norbury, in the Medical Fortnightly for December 10th, says that the treatment of post-febrile insanity resolves itself into proper care, good nursing, a systematized routine and good hygienic surroundings. Some cases do well at home but ordinarily they are better off in a well-regulated hospital or special institution.

The nursing is of special importance, and in cases following typhoid fever, the routine should be that observed in the care of ordinary typhoid cases, to which is added the care and protection needed to combat the insane features of the case. A more liberal diet is a feature in the care of insane cases differing from ordinary convalescence from typhoid fever. Bushuyer, a Russian, gives a more generous diet to his ordinary cases of fever than we are accustomed to give in this country. He, probably, is too enthusiastic, yet experience teaches that a liberal diet can be given, provided we treat the patient and not the disease. In the words of Shattuck, "feed him with reference to his digestive power, rather than solely or mainly with reference to his fever." It is to be expected that both skill and ingenuity will be needed in order to properly feed and nurse a post-febrile case; to this end all of our efforts should be centered. It is imperative that due regard be given to elimination, and a proper regulation of the secretions; then as nutrition becomes re-established, the patient will gain in weight, and gradually the mental symp-

toms will clear up. In many cases it becomes necessary to enforce rest, and in acute mania this must be assiduously secured, else the patient exhausts himself speedily. A modified rest-treatment is to be recommended in cases of a melancholy type, especially after convalescence seems to be pending. There should be no "hard and fast rule" as to rest-treatment; it should vary with the needs of the patient. Massage is indicated in many of the apathetic cases, it promotes nutrition and in some cases will induce sleep. In the true cases of autointoxication, elimination must be promoted by liberal use of aperients, diuretics, and, if necessary, brisk cathartics. The urine should be carefully measured and an analysis made so as to determine its quantity and quality. The percentage of urea should be observed and a microscopic examination made to determine the presence of casts. He saw during the past winter two cases, in consultation, both of whom presented symptoms of autointoxication and had been treated as such, but a more careful diagnosis showed acute nephritis. Uremic poisoning had caused the mental symptoms. Plenty of water is indicated in such cases, both internally and externally. In hospital cases, urge a sponge-bath daily, followed by brisk rubbing. Good drinking water is urged on all occasions. As to drugs, use only such sedatives as are absolutely necessary. Of these, opium and hyoscyamus use principally, and only in sufficient quantity to produce the sedative effect. Most cases of post-febrile insanity demand tonic treatment from the beginning; iron in easily assimilated form and arsenic are indicated. The anemia is best met by the use of arsenic; iron and strychnia are valuable adjuvants. Other tonics, especially the mineral acids combined with nux vomica and pepsin, or the malt preparations with tonics, are also valuable. In adolescent female cases iron and maganese make an excellent combination.

As convalesence progresses, some active exercise may be encouraged, such as walking, riding and light gymnastics. When convalescence is established, and not until then, travel may be suggested. Traveling with a convalescent post-febrile case is not safe, and suicides occur among such patients.

Purgative Waters.

Edwin Rosenthal, in the St. Louis Medical Review for November 24th, writes of the clinical value of purgative mineral waters.

He divides them into two classes.

1st. The simple sulphated or bitter waters, which can be used as a simple purge. They are indicated in habitual constipation, hemorrhoids, ptomaine poisoning (infection from the alimentary canal), a purgative in organic diseases of the bowels or pelvic viscera, in inflammatory conditions of the same, in certain febrile conditions when a purgative is indicated: always useful in pregnancy up to and after the puerperium.

2d. The alkaline sulphated waters can be used also as a purge, but they have a specific selective action. They are used in blood diathesis, as lithiasis, rheumatism, gout, obesity, diabetes, and can be used in organic diseases of the liver, spleen and bowels; as a course of treatment the alkaline sulphated waters are to be preferred.

Passage of Alcohol from Mother to Fetus.

In the American Journal of Obstetrics for December is an account of the result of some experiments upon animals and women by M. Nicloux in which he concludes that alcohol consumed by the mother passes to the fetus, the proportion of alcohol found in the blood of each being nearly the same. All the results of chronic alcoholism may thus be transmitted to the child, and the effects upon a nervous system in process of formation may be extremely serious. The alcohol ingested by the mother passes in the milk to the fetus. The amount of alcohol in the milk is about equal to that in the maternal blood. The effects upon the child Nicloux proposes to call congenital alcoholism.

Rheumatism and the Heart.

According to Delancy Rochester, in the Journal of the American Medical Association, rheumatism is an infectious disease in which endocarditis is an integral part of the disease and not a complication.

Further he says that pericarditis is a complication, just as much as inflammation of any of the other serofibrous membranes, meningitis, pleuritis or peritonitis is, although it occurs more frequently than any of them.

Myocarditis is an integral part of the disease, not a complication; occurs much more frequently than is usually supposed; is frequently unrecognized, and is the most serious feature of the disease.

The occurrence of endocarditis, pericarditis or myocarditis, or the previous existence of a valvular disease, whether compensated or uncompensated, is no contraindication to the use of the salicyl compounds, but rather an index to push their administration to overcome the toxemia of

the disease. Whatever one is chosen, it should be given in sufficiently large doses at sufficiently short intervals.

Rest in bed for a sufficiently long time is the most important part of the treatment of the cardiac manifestations of the disease.

Pericarditis with Effusion.

In the Boston Medical and Surgical Journal for December 13th, Geo. G. Sears reports six cases of pericarditis with effusion in which paracentesis of the pericardium was done. Three of the cases recovered and three died.

The fourth right space was used four times with one successful result; the fourth left space once, without result; the fifth left space, outside the apex, was no more successful on the one occasion it was used, but from the fifth right space 3 drachms of fluid were obtained. From the sixth left space just outside the nipple line, the largest amount, 38 ounces, was withdrawn, but owing to the equivocal nature of the physical signs it cannot be said with absolute certainty that it did not come from the pleura. The autopsy failed to throw light on this point. The fact that the fluid was twice obtained in one case below the margin of the ribs is a medical curiosity, and instructive as showing the amount of displacement which occurs with large effusions.

Retained Membranes after Delivery.

According to Obstetrics for December, Maygrier read a paper on this subject before the International Congress.

He said that in 2,000 labors he had 142 cases of retained membranes, or over 7 per cent.

The percentage seems high, but there are comprised here not only cases due to the unskilful management of students, but all instances in which retention is inevitable (death of fetus with maceration, extreme lacerability of membranes, etc.)

Of the 142 cases of retention the expectant method was employed in 92; nothing but vulvo-vaginal antisepsis being added. Fourteen of these women underwent accidents of some sort. In another series of 14 cases the membranes were immediately retracted, and no complication occurred here.

In a series of 35 cases a thread was attached to the membranes (Tarnier method), 4 of these cases had accidents.

In a single instance the uterus was swabbed out.

The number of accidents or complications already alluded to amounts to 18; of this number there were 2 cases of fatal sepsis—in one of which the Tarnier method had been used, while the other cases followed fetal death with maceration. The actual mortality then in the entire material was 1-40 per cent.

In conclusion, Maygrier believes in the expediency of *prophylactic* intervention whenever practicable in retained membranes, whether retention be complete or incomplete; the indication is furnished by the slightest rise of temperature and by the pressure of fetid amniotic fluid—and in general in any case of premature rupture of membranes; the methods counseled being manual extraction or swabbing out the uterus. The Tarnier method is to be used, if at all, with great circumspection.

Surgery of the Gasserian Ganglion.

In the Medical News for December 22d, Wallace Neff says that the medical treatment of neuralgia is not usually very beneficial.

He holds that trigeminal neuralgia is an ascending neuritis, peripheral in origin. The second and third branches, rather than the first, are the ones most likely to be involved.

If the disease persists after several months' trial with drugs, electricity, etc., surgical intervention is indicated.

If only one branch is involved and the disease is not of long standing, as much as possible of the affected branch should be removed with a view of relieving pain and preventing the upward progress of the disease.

If more than one branch is involved, and the pain is severe and has persisted for a long time, the ganglion should be extirpated, all other means having failed.

The temporal route should be followed, the Hartley-Krause, or preferably, Cushing's modification of it, being the most rational procedure.

Pain will not recur with original severity in more than one or two per cent. of the cases operated upon, or in any degree in more than four or five per cent., and is invariably due to an incomplete operation.

It is important to remove the ganglion and its branches intact in order to be certain of the completeness of the operation and to insure a careful and thorough microscopical examination of the specimen.

The present mortality is about ten per cent. Increased experience and an improved technic will undoubtedly diminish this mortality, and dissipate the risks of this hitherto most formidable, difficult and dangerous operation.

Sarcoma of the Nasal Fossa.

Perry G. Goldsmith, in the Canadian Practitioner and Review for December, reports a case of primary sarcoma of the right nasal fossa with acute frontal sinusitis and orbital cellulitis.

The patient was a male 48 years of age. The chief points of interest were:

The entire absence of any nasal symptoms whatever, yet the appearance of the man at once suggested mouth breathing.

The absence of any pain, except referred to the frontal region, also absence of discharge and of odor.

The apparently gradual distension of frontal sinus and acute exacerbation of trouble following the preliminary twisting of the five polypi.

The rapidity of the loss of flesh, etc.

The predominence of the ocular symptoms, prominence of the eye, diplopia, displacement downward and outward of the eyeball and frontal pain.

Apparent immunity of maxillary sinus from infarction.

The immense relief following clearing the ostium to allow drainage.

The two sources of the orbital infection: (1) From frontal sinus; (2) through orbital plate of ethmoid bone.

Stab Wound of the Small Intestine.

In the Memphis Medical Monthly for December A. E. Neely reports three cases of intestinal surgery one being a stab wound of the small intestine. The patient was a man 36 years of age, in robust health weighing over 200 pounds. He was brought in with a small penetrating wound of the abdomen, its location being at about the junction of the umbilical with the left lumbar region and below the umbilical line. The man was hilariously drunk, and the wound had been received in a drunken fray with a bosom friend.

Soon after his admission he was placed on the operating table, and after proper preparation, the wound was enlarged sufficiently to permit of a careful examination. Five wounds of the small intestine were found, four of them penetrating the lumen, the other involving only the outer coats; and one of the mesentery. These were all carefully stitched—the Lembert suture being used. The abdominal cavity was flushed with a warm solution, although there had been no leakage from the intestine, and the external wound was closed tight. The chloroform and morphin which the patient had received, added to the whiskey and beer with which he was loaded when he came into the hospital, made him crazy drunk, and soon after he was gotten to bed were compelled to put him in a straight jacket, in which he sobered up over night. On the following morning he was as well as if nothing had happened to him. He never had any rise of temperature, no sick stomach or disturbance of any kind. The abdominal wound healed promptly, and he left the hospital at the end of the third week wearing an abdominal supporter. He never experienced the slightest inconvenienee from his wound.

Superfluous Hairs.

Wm. T. Bryan, not Wm. J., in the Cincinnati Lancet-Clinic for December 15th, writes on Polarity and Electrolysis. He gives the following method of treating superfluous hairs.

Superfluous hairs may be permanently removed by destroying the hair follicle by means of negative electrolysis. Seat the patient in an operating-chair, or other convenient position, with good light. Use four to six cells of a battery with high amperage. (A good battery cell not only develops large amperage, but also high voltge, so that the same efficiency is obtained with much fewer cells.) Six cells require much less time than four, but will cause more pain. The pain may, however, be reduced by first anesthetizing the part locally by applying cocaine by means of a cataphoric electrode and galvanism. The positive pole should be firmly pressed to the skin close to the seat of operation, first cleansing the skin with alcohol, which decreases the resistance and lessens the pain. Attach a fine platinum or gold needle to the negative pole, and when all is ready the operator seizes the hair with a pair of tweezers and introduces the needle alongside the hair till the point just enters the hair follicle, usually about one-sixteenth of an inch deep. Soon a slight froth (hydrogen bubbles) will issue from about the needle, the hair becomes loose and is easily withdrawn. Use barely enough current to do the work expeditiously, and do not let the needle remain longer than it is necessary to produce sufficient chemical action to loosen the hair. The needle should not be introduced deeper than the follicle. The deeper the needle enters and the stronger and longer the current is applied, the greater the danger of cicatricial scar. Properly handled, no scar or pitting follows. Physicians construe the term "electrolysis" to mean only actual electrolysis, or disintegration of tissue, whereas there are more stages of electrolysis before actual disintegration

than there usually are steps in a winding stair before reaching the top landing. These minor electrolytic manifestations are of great value when pathological conditions amenable to them are encountered.

Screw-Worms in the Nose.

In the Medical Record for December 22, Hal Foster reports a case in which he removed 35 screw-worms from the nose. The patient was 72 years of age. He was admitted to St. Margaret's Hospital September 12, 1900. The nose, eyes, and face were badly swollen. He had excruciating frontal headache, and the discharge from the nose was bloody and very offensive. On making a nasal examination the worms could be readily seen in the nose. The tissue on the middle tubinated bone had been badly injured by them. The great majority of the worms were found in the posterior nares. They had made quite a large opening in the hard palate. A solution of alcohol and water was used in the nose first. This was followed by the application of chloroform directly to the worms by cotton applicators. This remedial agent soon dislodged and brought the worms away. Hot water was used by means of a fountain syringe, and gave great relief to the patient. The patient informed me that the worms had been in his nose about two weeks. He was very weak and greatly surprised when he saw the worms taken from his nose. He was given a nutritious diet, and iron was administered. The sinuses were not involved. The patient made a rapid recovery.

In all cases of obscure nasal discharge, bloody in character, a careful nasal examination should be made. As a rule the worms can be easily seen and dislodged, much to the comfort of the patient. Occasionally the worms enter the sinuses, causing meningitis and death.

Specific Urethritis.

W. A. Hackett, in the Medical Age for November 25th, does not speak very highly of the abortive treatment of specific urethritis.

He says it is better to treat on general principles, rest in bed if possible or a snugly-fitting suspensory, keeping the penis clean, bowels open, light diet, no tobacco or stimulating drinks, plenty of water and lemonade, cold coil around the penis. If in bed the patient should not be kept too warm and should be cautioned about his eyes. The best dressing for the penis is a piece of gauze 4 inches square with a slit cut in the center, through which the glans is passed, until the gauze is well behind the corona. The foreskin is then drawn forward, thus causing the free end of the gauze to protrude beyond the preputial orifice. Internally he uses salol and boracic acid. To render the urine alkaline he uses the alkaline waters or potass. bicarb and tinc Hyoscyamus or ext. picli fl. potass. acetat and spts. ether nitros. For chordee and painful erections the patient should empty the bladder befor retiring, and sleep on his side or a hard martress.

Cold to the penis, cocaine solution, opium, soda bromide or camphor monobromate may be used.

Injections should not be used before the end of the second week. Hot boric acid solution should be used first. Sulphate of zinc, acetat of lead, or permanganate potass. may be used with benefit. Deep injections made by the physician with a soft catheter are valuable. Cubebs, copaiba, methylene blue, or santal oil may be given

Stirilizing Sponges.

In the Medical Record for December 22 C.A. Elsbery gave a new and simple method of sterilizing natural sponges by boiling without impairing their natural qualities.

He said that sterilization of sponges by boiling had hitherto been impracticable because it had rendered the sponges inelastic and unfit for use. Other methods of sterilization had been so tenious and troublesome that gauze pads had largely taken the place of a sponge in surgery. Sponge consisted essentially of an albuminoid matetial called "spongein." It was perfectly precipitated from its solutions by a solution containing two per cent. of tanic acid and one per cent. of caustic potash; hence it should be perfectly possible to sterilize sponges in such a solution without destroying their desirable qualities. On testing this in practice the theory had been found correct. The solution could be used again and again, and after iufected sponges had been treated in this way bacteriological investigarion showed them to have been rendered absolutely sterile. The method of procedure was briefly as follows: The sponges were freed from calcureous matter by immersion for twenty-four hours in eight per cent. muriatic-acid solution and then thoroughly washed in water. They were next boiled for fifteen minutes in a solution containing one part of potassium hydrate and two parts of tannic acid to one hundred parts of water. The sponges were then washed and squeezed in sterile water or in carbolic acid or corrosive-sublimate solution until the potassium hydrate and tannic acid

solution had been removed. They were then preserved in a three to five per cent. solution of carbolic acid.

Symmetrical Development.

E. Stuver, in the Journal of the American Medical Association for December 22d, considers the question whether or not our present school system develops the highest powers of the pupils.

He says that the physical, intellectual and moral powers of the pupils should be developed at the same time.

Parents and teachers should thoroughly appreciate the fact that in its development the child is an epitome of the development of the race, and possesses many of the impulses and passions incident to the savage, barbarious and semi-civilized phases through which the race has passed,and that,in order to attain the best results. the instruction must be carefully adapted to the ever-changing, ever-varying needs and to the comprehension of the child.

As 'teaching is the art of promoting human growth," the successful teacher must understand his own powers and limitations; he must understand the growing pupil and be able to put himself in the latter's place, and he must have a thorough knowledge and grasp of the subject taught. Teachers should have a more thorough and comprehensive knowledge of the laws of mental development; a better understanding of educational methods and the best means of imparting instruction. To insure such knowledge and teaching power, the rank and file of teachers should have a more thorough education, a more professional training and preparation for their work,and,last, but by no means least, they should be better paid, and thus encouraged to make teaching their life-work.

We need more enthusiasm and less routine; more original investigation and search after truth for the truth's sake, and less cramming for examinations; less talking and lecturing on the part of the teacher, and more time devoted to training pupils in systematic and logical analysis, and in clearness and accuracy of expression.

Then, too, not so many studies should be pursued at the same time, but the work should be more thoroughly done and a stronger grasp of the fundamental principles on which all true eduation depends should be secured. To get time for such training, the number-drill and arithmetic, together with other formal and abtruse work should be greatly curtailed or entirely omitted from the primary grades and the children should be given greater opportunities to study natural objects in their natural surroundings. The study of flowers, trees, rocks, birds, animals, insects, etc., in their actual conditions and environments is of infinitely greater value to the pupils than the fragmentary conception of such things that can be given to them in the schoolroom in the midst of artificial surroundings. In addition to imparting more exact information, the outdoor excursions furnish healthful exercise, inspire enthusiasm, rest and strengthen the brain and mind and elevate the pupils morally, while the indoor study of such objects soon becomes a drudgery and is of comparatively little benefit.

More time and attention should be given to manual training. This training of the muscles develops the moter centres in the brain, discharges the accumulating nerve force in the motor centers, develops and strengthens the association fibers between the various brain centers and permits the higher brain centers to develop normally and store up power. This gives the student a richer sensory content. a more harmonious physical and mental organization and a better-balanced moral nature.

Greater care should be exercised in promoting the health and proper physical development of the pupils.

All harsh and dangerous punishments should be banished from the schools.

Stone in the Kidney.

In the Denver Medical Times for December, H. D. Niles emphasizes some points in the diagnosis of stone in the kidney.

He says that it occurs more frequently than is generally supposed.

We are all prone to overlook any but the most characteristic manifestations of stone in the kidney.

Whenever a patient presents symptoms of renal insufficiency or systemic infection of obscure origin, we should include the kidneys in our search for the cause.

The value of the X-ray pictures depends entirely upon whether they give positive or negative evidence.

It is from the use of the Harris instrument that we must obtain our most reliable information in cases where the classical symptoms are absent.

The methylene blue color test in connection with the Harris instrument promises to be a useful addition to our present means of diagnosis.

In this branch of surgery our present need is for greater alertness and accuracy in diagnosis rather than improved operative measures

Splenectomy.

According to the Medical Record for December 8th, D'Arcy Power in the British Medical Journal for November 17th, reports a case of successful removal of an enlarged and displaced spleen.

The patient, a woman of forty-three, mother of two children three years before operation, struck her left side just over the lower ribs. Two years later she noticed her abdomen increasing in size. She had suffered much pain and discomfort. At operation the abdomen was opened and the spleen discovered to be attached by a long pedicle. The organ was removed. The operation lasted an hour and a half from the beginning of the anæsthetic. On the forty-second day after operation the patient went home and has physiologically sustained no inconvenience from the loss of her spleen. Just after removal, the organ weighed two and one-half pounds. The enlargement was due to hypertrophy, the weight being seventeen or eighteen ounces after it had been kept in spirit for six months. Splenectomy seems to be a successful operation in cases of enlarged and displaced spleens when the enlargement is not leucocythæmic.

Typhoid Bacillus.

According to Treatment for December, Remy in Ann. de l'Inst. Past., describes a new medium for the isolation of the typhoid bacillus from the stools and from water.

	Grammes.
Distilled water,	1,000
Asparagin,	6
Oxalic acid,	0-5
Lactic acid,	0-15
Citric acid,	0-15
Disodium phosphate,	5
Magnesium sulphate,	2-5
Potassium sulphate,	1-25
Sodium chloride,	2

He says that the special gelatin medium by the plate-culture method enables us to isolate the typhoid bacillus in the presence of the *bacillus coli*.

With this medium thirty-one experiments were made for the isolation of the typhoid bacillus from the stools of twenty-three typhoid patients on different days of the disease. Three times the result was negative, once upon the seventeenth day, once on the eleventh day, and once between the seventh and eighth week; in the latter instance the typhoid bacilli had disappeared.

The number of typhoid bacilli in the stools increases up to the second week, and diminishes progressively during the third and fourth weeks.

The typhoid bacilli isolated from the stools always belong to one and the same type, and they do not give indol, do not ferment lactose, and are agglutinated by a high dilution of experimental serum.

The typhoid bacilli obtained from the stools during the course of the second week, as well as those isolated from the spleen postmortem, possess a remarkable vital activity, forming good colonies within forty-eight hours, growing vigorously in broth, and even in mineral solutions.

The typhoid bacilli isolated from the stools at the end of the disease, on the contrary, possess but a feeble vital activity, the colonies on plates growing slowly.

In twelve cases of disease other than typhoid fever the genuine typhoid bacilli could not be detected, although in two a bacillus was isolated which resembled the typhoid bacillus culturally, but which was not agglutinated by antityphoid serum.

Two Pregnancies after Double Castration.

According to Obstetrics for November, Kossmann reports a case in which pregnancy occurred after a double ovariotomy. The patient was suffering with intense bilateral ovaritis. The tubes were left in situ.

He was much surprised when, eighteen months later, the husband of the woman called to inform him that his wife was pregnant. In due time the child was born after an easy labor.

Kossmann was certain that no supplementary ovary had been present, as it chanced that this subject is one in which he is specially interested, so that a third ovary would hardly have escaped detection.

He was not so certain that in placing his ligatures and cutting away the ovaries he might not have left a small fragment of the latter in the stump.

As if to further confound the wisdom of those who would bring about an artificial menopause by double castration, this woman subsequently gave birth to another child.

Typhoid Perforation.

Manger, in Gazette des Hopitaux for October 4th, as reported in the St. Louis Medical Review for December 22d, says that perforation occurs in about three per cent. of all cases.

The most frequent causes are constipation, purgatives, straining, the taking of solid food too early. The usual site is the lower part of the ileum, although almost

every other portion of the intestinal tract, including Meckel's diverticulum, has been affected. Limiting adhesions are rarely sufficient to be of benefit. In some cases the acute symptoms may be absent and a diagnosis impossible until general peritonitis has supervened. Death usually occurs within two or three days. Surgical treatment is indicated, because otherwise the lesions are surely fatal, while, according to Mauger, 23 per cent. of those operated upon have recovered. Of course, no time is to be lost, and where possible a surgeon with experience in intestinal work should be employed.

Tests for Sugar in the Urine.

M. D. Hoge, Jr., in the Virginia Medical Semi-Monthly for December 7th, calls attention to some fallacies in testing for sugar in the urine. He says that Moore's or Heller's test, while very simple, is not very reliable. Trommer's reaction and Bottger's test are not reliable. Roberts' Fermentation test he considers the surest and freest from error, the only objection being the length of time required.

Penzolt Rubner test, warmly endorsed by Stern, is as follows: Equal parts of urine and a concentrated solution of normal acetate of lead are added and filtered. Ammonia, drop by drop, is added to the filtrate until a deposit of white lead saccharate is formed. On heating, the color turns to a light and then darker shade of red. This test is particularly free from disturbing factors, and may be relied upon to furnish an accurate and quick result.

Trachoma.

In the New York Medical Journal for December 15th, Thomas R. Pooley recommends the treatment of trachoma by expression.

The operation consists in the thorough and complete expression of all trachomatous granules without injury to the conjunctiva.

An anæsthetic should be always used, as the operation is both painful and protracted. In the beginning, the writer always used, for the expression of the granules, his thumb nail, rendered properly aseptic, and also in the first few cases applied the solid stick of sulphate of copper after the operation, rubbing it thoroughly in, although both of these procedures were afterward abandoned; since gaining in experience in the performance of expression, the use of the roller forceps devised by Dr. Knapp has been resorted to in every instance.

In removing the granules from the angles cilia forceps have been found more useful than any other instrument.

The further progress of the operation as practiced, is exactly the same as that described by Dr. Knapp (*loc. cit.*) except that two forceps are used—one a fixation forceps to fix the lid; the other, to do the squeezing. Both eyes are always operated upon at the same time. Repeated experience has shown that the after-reaction is not much to be dreaded, There is usually only slight swelling of the lids, in some slight conjunctival hæmorrhage. The patient is permitted to go home immediately after the operation and is directed to make application of cold compresses, and to wash his eyes several times a day with a saturated solution of boric acid. In most instances it will be found, for the first few days after the operation, that the conjunctiva will be slightly coated with mucus or coagulated fibrin.

He says that of all the mechanical methods that have been devised for the treatment of trachoma, it may be said that expression in suitable cases is the most efficient remedy yet discovered; effecting, in a large percentage, a more or less complete cure with better preservation of the conjunctiva than any of the other methods hitherto described.

It must, however, in every instance, be carefully followed up by local treatment until all tendency to relapse has disappeared.

The success of the method depends upon the conscientious removal, so far as possible, of all the trachomatous bodies without injury to the conjunctiva.

In any event, so far as the writer's experience goes, more or less frequent relapses will occur.

The Eustachian Bougie.

According to Lorenzo B. Lockard, in the New York Medical Journal for December 29th, the eustachian bougie, except when used as an electrode, is applicable in two conditions only, stenosis and tinnitus.

The therapeutic effects are uncertain; sometimes harmful, frequently beneficial.

It effects its purpose in two ways; by pressure upon contracted tissue and by reflex influences upon the auditory centre.

It should be given a thorough trial in all cases that have resisted other procedures.

Its use must be stopped upon the first sign of increase in the local trouble.

If care is taken, the dangers said to attend its application will be accidents of the greatest rarity.

It has a definite field in aural surgery.

Tuberculosis of the Testicle.

According to John B. Murphy, in the Journal of the American Medical Association for December 1st, the Epididymis should be removed alone for tuberculosis either single or double except when there is extensive tubercular disease elsewhere or when the testis proper is greatly involved or the scrotum riddled with discharging sinuses

After epididymectomy the patient is sterile, but not impotent, while after castration he is both. He describes the operation in the following steps:

Incision into the sac of the tunica vaginalis, just external and parallel to the epididymis.

Dissection of epididymis from testis proper, commencing below at globus minor and passing upward to mediastinum testis. From here one must proceed slowly and carefully so as not to injure the spermatic artery and veins, closely hugging the epididymis and separating it from the tests proper and spermatic vessels. Blunt dissection should be used when possible, cutting only when necessary. If a focus is discovered in the mediastium it is to be excised in a wedge-shaped piece and the defect closed with catgut sutures.

When the globus major is free, the vas is to be isolated from the other structures of the cord upward, as for as the internal ring, where it is to be clasped on both sides of its circumference with hemostatic forceps, divided and the lumen of the proximal end cauterized with 95 per cent. carbolic acid in the end of a needle. The needle is to be worked upward in the lumen for one-half inch and the mucous membrane thoroughly cauterized.

When the cauterization is complete the vas is ligated with chromocized catgut, one-quarter of an inch from its end, so as to prevent infectious material from passing backward through it into the tissues. This step is considered of great importance as previous to the use of the ligature it was not uncommon to have induration and occasionally suppuration develop near the stump of the vas. The tunica albuginea is to be sutured with catgut, if it has been opened.

The testicle is now replaced in the scrotal sac, and the external wound closed either with a buried subcutaneous suture of catgut, or interrupted sutures of silk-worm gut, leaving a small iodoform gauze drain in the lower angle for forty-eight hours.

After forty-eight hours the gauze drain is removed and provisional sutures, put in at the time of the operation, are tied.

Typhoid Feeding.

Wm. M. Brown, in the Medical Record for December 1st, makes some remarks relative to typhoid feeding. While liberal feeding is useful in this disease yet we should be careful as to the kind of food and it should be given at longer intervals than is customary.

He says that the bacillus typhosus, while the initial, is not the prepondering factor in the toxæmia.

That in ordinary cases the functions of digestion are attended by heat production, which is varied in amount by the kind of food ingested, proteids and carbohydrates giving the least number of heat units while promoting the most effective digestive fluids.

That the process of digestive secretion is accompanied by a transudation of certain portions of the cell substance in the various glands, which require considerable time for restoration before they are capable of efficient work. Hence we should not feed too often.

That an inefficient digestion leaves a large residue of food which undergoes fermentation, causes distention, increases the danger of hemorrhage and perforation; also forms a favorable culture medium for the various bacteria, so increasing the toxæmia, which in turn hastens the disintegration.

That milk unprepared is not a liquid food and will take as long to digest as many solid foods.

X-Ray in Eye Injury.

According to the Atlanta Journal-Record of Medicine for December, Wm. M. Sweet reports a case of a piece of glass in the ciliary body located by the Roentgen rays and its removal with forceps.

The injury occurred to an engineer from the explosion of a locomotive oil glass, a fragment penetrating the cornea in the lower outer quadrant near the sclera and passing through iris and periphery of lens.

When first seen, three months after the accident, the lens had been absorbed, but haziness of the vitreous prevented a view of the interior of the globe. Radiographs indicated that a body, casting a fainter shadow than is usual with metallic substances, was situated close to the ciliary body at its lower temporal portion. On October 6th an iridectomy was performed at the Jefferson Hospital through an incision at the lower outer corneo-scleral junction, and a pair of iris forceps passed to the spot indicated by the radiographs. After a number of attempts, a mass of exudate containing the piece of glass was drawn

into the anterior chamber and removed. Warm saline solution was injected into the globe to replace the vitreous lost. The glass was 5 mm. long, 3 mm. wide, and 1.5 mm. thick. Very little reaction followed the operation, the corneal wound healing on the third day and the man being discharged on the eighth day. The vitreous is still hazy, but the eye is quiet, with prospect of a serviceable ball and possibly some sight.

Typhoid Fever.

In Merck's Archives for December Alexander Thomson gives in outline a very practical treatment of typhoid fever. He recommends early purgation with rectal injections of water. For the fever cold sponging and continuous cold application to the head, Solol should be given regularly with plenty of water.

Bismuth, tannin and turpentine for the bowels. In case of hemorrhage use free doses of opium, tannin, lead acetate and bismuth. Strychnine for the heart after the first days. Keep the bed and patient clean.

Unhealthy Schoolrooms.

According to Treatment for November, Schmidt-Maunard of Leipzig, has been occupied for several years in making observations on the health of children in schools. It is of course very difficult to obtain exact information as to the manner in which attendance at school affects the growth and weight of children, but he is able to affirm that during the first year at school the growth, both as regards height and weight, is less than during any preceding year. He is of opinion that the well-being of the children, and incidentally their growth, is injured by the ill-health caused by imperfect sanitary conditions, especially inadequate supplies of fresh air and light. In the higher schools in Leipzig, Dr. Schmidt-Mounard found that headaches, sleeplessness, and nervous ailments were frequent, especially among girls. Schools in which the pupils are obliged to practice gymnastic exercises every afternoon had a much smaller proportion of children suffering from insomnia than those in which study went on all day. Further, he claims that children who do not go to school until they are seven years old become stronger, and are in all other respects better developed, than those who go to school a year sooner.

Dr. Schmidt-Mounard would doubtless agree with the dictum of Sir James Crichton-Browne—"First make your son a good animal."

Varicose Veins.

J. B. Blake, in the Boston Medical and Surgical Journal for December 13th, gives the results of operations on varicose veins.

He says that operation for radical cure by dissection is not always successful.

To obtain successful results, cases must be selected and certain conditions avoided, and recommended to palliative treatment.

The conditions which will probably militate fatally against satisfactory results are: (a) Old age, or an extremely debilitated condition; (b) excessive and very extensive varicosity; (c) occupations which to an extraordinary degree favor the development of varicose veins.

Cases which may be cured by a thorough and careful operation are: (a) Local varix, even of marked prominence, particularly if thrombosis has occurred, either in thigh or lower leg; (b) extensive varix, limited to a single venous stem; (c) varicosities, which are a bar to passing civil service, military or naval examination; (d) cases in youth and middle life; (e) cases in which the development of the permanent varicosity was at least partially due to more or less removable conditions (flat foot, garters, etc.).

Operation, even if not entirely successful, will usually relieve such complications as thrombosis, hemorrhage and ulceration.

The usual conditions which follow unsuccessful operations are: (a) Pain in and around the scar; (b) general swelling and tenderness of the leg; (c) development of varicosities above or below the operation scar, but not at the site of the operation itself.

In all operated cases, general systemic treatment as well as local treatment should be prescribed, together with exercise and the avoidance of a continued upright position whenever possible.

Cure of symptoms does not necessarily mean the removal of all visible varicosities.

Comparison of relative methods of multiple ligation and continuous dissection must be based upon a larger number of cases than are here recorded.

Bennett's conclusions and his extreme limitation of the indication for successful operation are too sweeping.

White Swelling of the Knee.

Judson presented a boy, before the New York Academy of Medicine, seven years of age, slowly convalescing under mechanical treatment for white swelling of the left knee.

A year ago the patient's general condition was most unfavorable and locally there were sinuses surrounding the knee, great

swelling and the usual evidences of disintegrating joint. His condition and the method of his treatment were described when he was presented to the Section on October 20, 1899; and the opinion was expressed that it was a case in which operative surgery should be practised in order to save life. Continued reliance, however, had been placed on the reparative natural processes assisted by mechanical treatment. In spite of the most unfortunate and discouraging environment, improvement had been marked generally and locally. The tumor was very much reduced and firm scars had taken the place of nearly all the sinuses.

A year ago the child was emaciated and distressed, but, on examination, he was found to be well-nourished and comfortable. Treatment would be continued by a fixative brace worn day and night and an ischiatic crutch worn only in the day time. Prognosis was still in favor of a useful limb, of good health, with no flexion and no deformity except a slight and unimportant degree of subluxation.

The Leading Editorials of the Month.

The Beer Question.

The Hospital says that the continued occurrence of cases of injury and even of death attributable to the consumption of arsenical beer raises many questions which will require most careful consideration. Accepting it as proven that a large proportion of the sufferers from arsenical poisoning of whom we have lately heard so much have derived their arsenic from beer, and that the arsenic obtained access to the beer by a way of certain materials employed by the brewers in place of malt, we could quite sympathize with the cry which has been raised in favor of legislation which shall render it compulsory upon the brewers to put nothing into their beer but malt and hops—if that were all. It seems so simple; it seems so obvious that if nothing but pure malt and pure hops were put in, nothing but pure beer could come out. But we are not sure that this expresses the whole case, or that this is the best or only way. We remember the olden days when perhaps beer was pure; but it was not always nice. The strong ales, brewed at the proper time of year and kept for months, were undoubtly very good, and so they are now; but the ordinary beer was very different stuff from the brilliant light ales which the confessedly substitute-using brewers now give us, and although it is quite probable that if the same amount of care and thought had been devoted to the production of cheap light ale from malt as has been given to the production and use of malt substitutes a far better result might have been attained, the fact remains that the brewers of exclusively malt beer do not seem so far to have been able to provide the cheap beer of the quality that is asked for. Hence the problem is largely mixed up with the questions of price, and as the provision of a sound, clear, and only slightly alcoholic beer seems to us the principal means at our disposal with which to withstand the tide of whiskey which is flowing over the land, and which is, without doubt, the first cause of many of those traits of modern life which indicate the oncoming of national decrepitude, we cannot regard the more or less plausible demand for a return to "malt and hops" as a true solution of the problem, unless it can be shown that with modern appliances a beer can be brewed which is cheap and light as well as pure.

And this is the root of the question. As for purity of course beer ought to be pure, that goes without saying, and so ought the materials from which beer is brewed, whether these consist of malt or glucose or maltose, or any other substance from which the brewer finds that he can make the best and cheapest beer. It cannot be denied that a large proportion of the substitute-brewed beer is perfectly good, and is, in fact, indistinguishable from beer brewed from the purest of malts. The present trouble never could have arisen unless the use of contaminated materials had been allowed in the brewing. The error, nay, we would say the crime, has been the selling and the using of a poisonous compound in the preparation of an article of diet, and if it can be shown that the introduction of such poisonous compounds can not otherwise be prevented, then by all means let us go back to malt beer; but such a conclusion would be a miserable confession in these days of science. We do not think, however, that so far this has been shown to be the case; indeed, we do not know that any serious attempt even has been made to supervise or control the materials used in brewing so far as their chemical purity is concerned, and unless it can be shown that this has been tried and has failed, the entire prohibition of the use of anything but malt seems a somewhat clumsy device. Beer ought to possess certain qualities; among these, one at least should be freedom from poison; and the man who sells poison-containing beer ought to be severely punished. That seems to be the end of the matter. For parliament to intervene regarding the recipe from which the beer is

to be brewed is a measure which may possibly be necessary. But it is an extreme measure; one which involves a degree of scepticism as to the power of chemistry which is quite contrary to the drift of modern times; one, the necessity of which has certainly not yet been shown; and one, which, before its adoption, requires to be considered in all its bearings including the price, the quality, and the purity of the final product which is sold to the public—matters far more important than the mere restriction of the brewer to one form of fermentable material. Let us suggest a problem. Suppose—and in these days of advanced and "scientific" farming it is quite a reasonable supposition—that it were found possible to prevent mildew and smut, or any of the other maladies to which barley is subject, by spraying the growing corn with a weak arsenical solution, or with nicotine, or with some other of the hundred-and-one poisons at the disposal of the agricultural chemist; how would the drinker of "pure beer"—pure malt-and-hop-beer—fare then? The trust in malt and hops must always be but a broken reed unless proper care and supervision be exercised in regard to the materials going into the mash tub, and if this be granted, malt and its substitutes are on all fours with one another. In reference to this point attention must be drawn to the warning given by Mr. Estcourt, analyst,to the effect that he has found arsenic in several makes of malt, and in sufficient quantity to show in the beer produced from it as much arsenic as has been found in beer brewed from arsenical glucose. Nothing can get over the fact that, in regard to beer, as in regard to every other article of food, the protection of the public lies not in minute interferences with the processes of production, but in imposing the severest penalties on those who foist the poisoned or the adulterated stuff upon the consumer.

The Scientific Basis of Organotherapy.

The Journal of the American Medical Association says that it is possible that even in the remote past there have been glimmerings of an empirical application of the principles of organotherapy, but although these principles are still far from established on a permanent basis, it is only since Brown-Sequard began the use of testicular extract and suggested its mode of action that we have come to employ glandular preparations with any degree of precision in the treatment of various morbid states. Then followed the brilliant observations with regard to the relation between disease or surgical removal of the thyroid gland, on the one hand, and cretinism, myxedema, and the cachexia strumipriva on the other hand, and their successful control by means of transplantation or administration of preparations of the gland obtained from the lower animals. The results from the use of adrenal preparations in the treatment of Addison's disease have been scarcely as striking, although those preparations have shown themselves possessed of profound physiologic activity. While destruction of the pancreas is sometimes attended with diabetes, the disorder does not yield to the administration of pancreatic preparations: and acromegaly, so often associated with disease of the hypophysis, does not respond to the administration of preparations of this organ, perhaps because the condition is already one of hypertrophy and over-action, in the same way as, and for the same reason that, exophthalmic goiter is aggravated by the administration of thyroid extract. Further, there is yet, no evidence justifying the employment of extracts of kidneys, liver, heart, spleen, brain, and spinal cord, in the treatment of disorders of these various organs.

What the future of organotherapy shall be it is impossible to predict, but if the therapeutic principle on which this method of treatment is based had to its credit nothing more than the successful management of cretinism and myxedema, there would be ample justification for its continued application. Some of the cytologic problems connected with this subject have recently been discussed in a most forceful and philosophic manner by David Hansemann, in an address dilivered before the Association of German Naturalists and Physicians. As he points out, the therapeutic employment of glandular structures is based on the assumption that specific substances supplying some need of the body are produced in different organs. It may be excepted that every organ is necessary in the healthy body, though perhaps in varying degree. Each takes something from the circulation—and some are provided with excretory ducts—and each adds something to the circulation. This latter we have grown accustomed to designate an internal secretion, in contradistinction from the former, which may take the form of an external secretion.

Although the cellular elements of the blood are supplied essentially by the spleen, the lymph-glands and the bone-marrow, the plasma is the composite product of the metabolic energy of all the cells of the body. Consequently, any alteration in the functional activity of any organ must result

in changes in the constitution of the blood, and this in turn will influence the activities of the remaining organs. The intensity and the rapidity of the resulting effects will vary with the size and importance of the organ in question. No tissue, therefore, can suffer without injury to all others and to the entire body. Each possesses a specific and important function with relation to all of the others. This peculiarity is due to a like quality of the cells by which, in turn, it is derived from the parent-cells. Organotherapy consists in supplying artificially substances by means of which the activity of diseased or absent organ can be replaced, particularly with reference to internal secretion. There is, however, no sufficient reason for believing that a gland from one animal will have the same chemical constitution or the same physiologic action as the like gland from all other animals, and it is in this connection especially that important studies need yet to be made.

Home Treatment of Tuberculosis.

Gaillard's Medical Journal says that the profession is to be congratulated on the progress made in the study of tuberculosis during the last few years. Through better knowledge of the subject, more people recover from the disease, an earlier diagnosis is made in many cases, and a more rational care of the patient has come about. The modern sanatorium management, too, we may well believe, offers the best chances for recovery and is destined to still further reduce the general mortality.

But most patients are unable to pay for institution treatment and the state can never hope to provide sanatoria for half of the indigent cases, even if they were all willing to go to them, which is not the case. There will always be a large number of people who will sicken with consumption and recover or die from it at home. These must depend, in the main, on the assistance of their family physicians. Are these physicians doing as well as they can for such cases? Are such cases having as good a chance for their lives as their circumstances and surroundings make possible? We think it is only fair to answer each of these questions in the negative. Physicians are too careless as to details of hygienic management on which the life or death of the patient depends. Some seem never to have learned that benefit can come of such measures. Most such patients have no carefully ordered hygienic management, except that which they devise themselves. They are given medicines, usually tonics, such as strychnin, iron, quinin, cod-liver oil and whiskey, all of which in their way are beneficial. They are admonished to eat and to cut down or stop their work, both of which they do in a most empirical and unscientific way. Every patient ought to receive from his physician a carefully prepared schedule of regimen, written out minutely if need be, and to be observed continuously. It should cover all details as to the number of hours daily to rest, and how to do it; the methods of rest out of doors; the kind of room and bed to sleep in; the ventilation for both night and day; the character and amount of exercise; the way to be clothed; the food for each meal, and the number of meals each day—more than three—and the hours they are to be eaten; the care of the stomach and bowels; and the management of amusement for mental tranquility.

How many cases in a hundred ever have such attention? Yet the life of many a consumptive depends on avoiding some indiscretion which such rigid rules might prevent, and it is attention to just such details as these that makes the remarkable records of the sanatoria. Is it impossible to give the average case some fair approach to such efficient services at home? We prefer not to believe it. The people are ignorant and not to blame if they fail. The physician knows the value of these measures and is responsible. He ought not to evade his responsibility. The home treatment of pulmonary tuberculosis, is we believe, not half as effective as it might be made, and ought to be.

Regulation and Abolition of Prostitution.

The Medical Times says that this great social question has long been a subject of discussion by physicians and legislators. In some of the European states it has been regulated by law, so far as license and general supervision is concerned, looking always to the protection of the public health. At the International Congress of London and Brussels in 1899, the question of the regulation and abolition of prostitution was fully discussed. Dr. Obozneuko, who is what is termed a moderate abolitionist on this question, discourses at some length on the arguments, "for and against the licensing of vice," as they were presented at these congresses.

Statistics, he says, shows that (1) The spread of syphilis has by no means diminished during the existence of police supervision; on the contrary it continues to increase in alarming fashion, (2) The best representatives of modern medicine deny

the old-fashioned notion that prostitution is a necessary evil; on the contrary they say that continence is the best foundation for the health of young men. (3) Police supervision is not and cannot be successful because it must necessarily be intrusted to the lowest grades of officials whose moral and mental caliber is not high enough for the requirements of this work. (4) The protection of the houses of ill fame by the government is a disgrace to Christian nations, undermines the conception of the criminality of prostitution among the youth of the country, facilitates the indulgence in vice, and guarantees in a measure the absence of ill consequences of vicious practices, thus serving as a direct temptation and inducement to young men to lead an immoral life. (5) The system of surveillance, with its licensed houses and officially permitted system of pandering, not only does not protect public women from abuses, but even by securing the mistresses of the houses under the wing of police protection, increases the slavery of the prostitute and by inscribing them into the rolls of public women, cuts off all possibility of their returning to a decent mode of life. (6) The criminal phases of prostitution should be under the jurisdiction of the criminal courts, and not, as at present, subject to the will of the police authorities and the regulations concerning surveillance. Under the present system much that is prohibited by criminal law is permitted by the police code.

Why Prepare for an Inferior Profession When a Superior is Offered?

The Medical Fortnightly says that a medical student in the editor's office received a circular letter from The Classen Manufacturing Company, Des Moines, Ia., urging him to accept the agency for the famous featherbone underskirts, etc. On the envelope enclosing the circular letter, in red ink, appears the advertisement of the S. S. Still College and Infirmary of Osteopathy, the greatest college of osteopathy in existence. In addition to the circular letter is enclosed a small folder with S. S. Still College (in red ink) on one side, with featherbone skirts on the reverse side. On the *Still* side, appears the following: "Why Prepare for an Inferior Profession when a Superior is Offered?" Here we have a mixed breed—a new idea in advertising—a new way of approaching students; a new way of getting in touch with young men who have their own way to make in the world. We can see no other motive for combining underskirt advertisements and osteopathy, it is peculiar mixture to say the least, and at once gives to Still's concern an unsavory flavor, a flavor of commercialism akin to selling town lots and setter-pups in one glaring red-ink scare-head hand-bill.

But as to the question, why prepare for an inferior profession when a superior is offered? If this question was directed to the young man to whom the circular was addressed, we know his answer, because he is no fool. But if directed to some of the mortal youth seeking for something to turn up that has about it an air of apparent respectability; a chance to appear learned and with great return for a little investment, then, perhaps, a note due when the crop is harvested would be exchanged for tuition fees at this, the greatest emporium of leg pulling in Iowa. Featherbone skirts would not be sold for a great length of time, but instead the time would be employed in going through the motions of getting learned, growing a beard, cultivating the art of looking wise and acquiring some familiarity with a few stock expressions about nerve centers, joints, dislocations, etc., etc., to be used *ad libitum* in the presence of the supposedly afflicted individual. Then a diploma lithographed, loaded with a seal that looks like a tin-plate, is given as evidence that the youth is qualified to heal the sick, instead of selling underskirts, and that he has the right of way over all comers. In short, he is a *superior* man, and can shoot the chutes, dance the serpentine, and play "big Injun," just to suit his fancy. Ah! but he has a noble profession—a superior profession—he is an osteopath, and great guns, he can now tie his destiny to a comet, for he is bound to shine.

Absent Treatment and Death Certificates.

According to the Medical News, New York City for the past few weeks has been the scene of a most interesting spectacle. Publicly and in high places the community has been assured that there is no such thing as sickness; that Christian Science can cure all that the human mind understands to be disease and that all that is necessary to eradicate tuberculosis, cancer, smallpox, typhoid fever, or even to be able to raise the dead, is to become a *healer* and *think about it*.

All of this we regret to say we have heard before; and the medical profession has been unable to make much headway against the present wave of ignorant fanaticism that is so profitable to the high priest thereof; but there is one phase recently brought out that can be remedied and we commend it most

heartily to the Health Board and the County Medical Society for investigation.

It appears from the testimony, which is being so ably brought out by the learned counsel in the Brush will case, that patients of Christian Scientists do occasionally have human manifestations such as scarlet fever, tuberculosis, etc., aud that they do die. We learn that cases of contagious diseases are not reported to the Board of Health and that death certificates are being granted by a Dr. Pease, a so-called legal practitioner, without the formality of seeing the patient.

Absent treatment, even to the point of granting death certificates is too much, and we register a protest.

Is the Widal Test to be Relied Upon.

The N. Y. Medical Journal says that most clinicians, to say nothing of the bacteriologists and laboratory workers, look upon the Widal blood test for typhoid fever as thoroughly trustworthy, and have granted it a place among the routine clinical examinations, such as that of the urine for albumin, of the blood for the malarial plasmodium, etc. But can it be relied upon in the diagnosis or exclusion of typhoid fever? It is recognized that in a certain small percentage of cases of typhoid fever the Widal reaction is absent throughout the entire course of the disease. It is much more difficult to prove the opposite, that a case is not one of typhoid fever, even though the Widal reaction is present. Such cases are usually ephemeral and nearly always end in recovery; so that if the blood shows the looked-for reaction, they are confidently diagnosticated as "mild" or "abortive" typhoid, without fear of contradiction. The Widal reaction is due to an increase in the bactericidal power of the blood serum against the typhoid bacillus. But the possibility that in some cases of simple ephemeral fever the normal bactericidal power of the blood may be increased should always be borne in mind. It is held by most authorities that if blood diluted twentyfold has the power of killing the typhoid bacillus, it must come from a person who has or has had typhoid fever. The routine practice of the Widal test, by the dried-blood method, is based upon this belief. Yet Wright (Lancet, December 1st), by an exceedingly exact and accurate method for determining quantitatively the bactericidal power of the blood, found that, in fifty healthy individuals, the blood of twenty-five (fifty per cent.) killed the typhoid bacillus, when diluted twenty-fold. In fifteen per cent. the bactericidal effect was complete even with a fortyfold dilution. The possibility must, therefore, be admitted that in some of the cases of so-called "mild typhoid" the Widal reaction may be due simply to the patient's blood having high bactericidal power in health; i. e., that such cases are not typhoid fever at all.

Wright has also investigated the modifications in the bactericidal power of human blood produced by additions to that blood *in vitro* of specific antityphoid sera. Two such sera were purchased; it was found that even quite small additions of these sera to normal human blood brought about a complete, or all but complete, abolition of the normal bactericidal power of the blood.

In other words, the introduction of such sera into the circulation in cases of typhoid fever would do harm rather than good. Further experiments are called for, and they may throw an important light on the utility or injuriousness of various other therapeutic sera; in particular, of certain anti-streptococcus and antiplague sera.

Laboratory Investigation and its Effect on Clinical Diagnosis.

The Journal of the American Medical Assaciation says that it is a common human characteristic to seek that which is new and to believe in new things without subjecting them to the criticisms which are advanced against older facts. Medical literature teems with instances in which medical men have been carried away by their enthusiasm over methods of diagnosis or treatment which experience has proved to possess no advantages, but rather disadvantages, over well bred measures. This desire for the new, however, is responsible for many of the advances which have been made, for were all men satisfied with that which they possess, seekers after additional facts would be few.

During the last few years the profession has been more or less carried away by the tendency to resort to laboratory methods of diagnosis, 1, because many of these are associated with the new science of bacteriology, and 2, because the results obtained have seemed more scientifically accurate and certain than those which were obtained by our predecessors who were forced to reach their conclusions from a careful study of the symptoms and signs presented. The result has been that the physician of the present generation, at least the younger ones have been taught to rely more on chemical tests aad on investigations with the microscope than on auscultation, palpation and inspection. While the newer methods possess advantages which can not be overestimated, still it would be unfortu-

nate if modern physicians should lose the skill so often possessed by their predecessors, who had to rely on what seemed to be more crude methode of investigation, and yet which require on the part of the physician as broad an education, as great skill, and a degree of training which, after all, command the highest respect in the diagnostician and therapeutist.

We should cultivate the habit of keeping our eyes open to everything that is presented to them or that passes before them; and Dr. Mitchell Bruce enters an earnest plea for the training of the eye, ear and touch in the investigation of disease. Those were the portions of the physician's training in earlier times of which he was most apt to boast when his skill was well developed; and, as Dr. Mitchell well says we ought to be ashamed to confess that a condition which was elucidated by Stokes, Skoda, Walshe and other masters of clinical medicine forty or more years ago, has lately become what might be called a "fashionable disease." "Were there no dilated hearts before the time of Schott, or was it that we did not trouble to find them or that we had forgotten to find them?"

There is still another factor in diagnosis to which Bruce has called attention, namely, the value of negative signs. Too often physicians are inclined to reach no conclusion unless definite positive signs are presented on making an examination. The reason of this is obvious. The presence of a murmur in the heart, of blowing breath in a lung, of tremor in a hand, or some similar definite symptoms leads one naturally to certain conclusions. But if on listening to a chest we find distant or feeble breathing, or on palpating a heart we get an insufficient impulse, or, again. if on taking the grasp of a patient, we find it not as strong as it should be, are we not inclined to regard these signs as of little importance, and to base our diagnosis on others which are really of less value, but which are more marked? This fact is well emphasized by Bruce when he says: "How often have not you and I turned from the auscultation of the posterior base of the chest in acute pneumonia at our first visit, and said: 'There is nothing wrong there,' when we ought to have said, 'I hear nothing there, the lung must be engorged.'"

It was said of the late Dr. Da Costa, than whom there has never been a more skillful diagnostician in our country, that on many occasions he seemed to make a diagnosis by instinct even before he had examined a patient. But those who were accustomed to meet him at the bedside soon learned that his apparent instinctive deductions were really based on an extraordinary power of observation, and he would frequently pass direct to the path which would lead him to a diagnosis by the facies of the patient or by some other superficial sign which the more careless and less experienced practitioner might have overlooked.

Intraspinal Anesthesia.

The International Medical Magazine says that the recent furore over the production of anesthesia in the lower part of the body by cocainization of the spine, suggests a number of pertinent reflections. Some phases of it strikingly prove that surgeons, as well as physicians, are very human and quite as liable as the rest of mankind to run somewhat hastily after the newest thing. Our profession in the United States shares the prevalent American weakness of looking always to the East and worshipping at European shrines.

Dr. J. Leonard Corning, of New York, discovered fifteen years ago that anesthesia of the parts below could be produced by injecting cocain into the spinal canal and his articles on the subject at that time were given a wide publicity. But no impression was then made upon the profession by this important discovery. Few surgeons paid any attention to it and it was soon virtually forgotten. Recently Bier, of Kiel, revived the method, and Tuffier at the Paris International Medical Congress reported 125 operations performed under this form of anesthesia. Since this formerly quite neglected American idea has thus received European endorsement, the rush of surgeons in this country to try the method and report their results has been only less general than the wild scramble of our medical practitioners to obtain and make a trial of Koch's lymph when the virtues of the latter were first promulgated in Berlin.

And the analogy does not stop here, for before Koch made his celebrated announcement of a remedy for tuberculosis, a distinguished American physician and scientist, Dr. Samuel G. Dixon, of Philadelphia, had made and reported a very similar discovery, to which little or no heed was given.

Koch's famous lymph was at first received with almost a frenzy of enthusiastic acclaim, and was often recklessly abused by its administration in excessive doses in all sorts of cases, suitable and unsuitable, until the largely increased mortality resulting led to an equally irrational condemnation of the remedy *in toto* and its almost entire abandonment. In like manner there are indications that medullary narcosis is already being carelessly employed in some quarters, and

reports of accidents, fatal results and failures are beginning to be made, so that there seems danger of its falling into an early disrepute, to be followed by violent and wholesale condemnation, as in the case of tuberculin.

The latter has been proved to possess a real value when used in proper doses and in appropriate cases by those who have made a study of it, and it is highly probable that the Corning-Bier method of producing anesthesia will in the end be accorded a permanent place in the armamentarium of the surgeon, to be employed in those cases only that are exactly suitable for it, with the most scrupulous antiseptic precautions, and with extreme care that the dose of the anesthetic agent be not excessive. A careless routine use of it by others than expert surgeons would seem to involve quite as much risk as general anesthesia.

Unbridled Quackery.

According to the Medical Record Dr. Kenwood writes in English Public Health of "the ways that are dark and the tricks that are vain" of the numerous members of the quack fraternity. Referring to indecent advertisements in the papers he says: "The advertisements of the sexual quack tend to corrupt the sense of public decency and propriety. His other literature is invariably of the same type. Those who care to read this sort of stuff will find in it long columns of puffery, and 'dirt' in the files of many papers, but mainly in certain Sunday and weekly papers, which are the most frequently read by those female members of the community who are most likely to be in need of that relief promised and least likely to hesitate in accepting the specious offers made to them. The printed matter sent out with these pills and potions leaves no doubt as to what the vendors wish to be understood as selling. They deliberately advertise their wares as capable of producing abortion, although they avoid using the actual word. They are mostly thinly-veiled invitations to purchase and employ the advertised agents for the purpose of procuring miscarriage. As to their actual power in this direction it appears that some preparations contain well-recognized abortifacients (pennyroyal, aloes, etc.), and the vendors evidently aim at acting up to their professions, but others are designedly inert. The literature of the trade often contains a warning to the effect that the remedy must not be taken by those expecting to become mothers. This is, of course, a transparent device undertaken to attract attention in order to sell the goods."

Whatever may be the situation in Great Britain with regard to quackery, and from all accounts it is bad enough, we venture to say without fear of contradiction that the custom is not nearly so widespread or unrestrained as in this country. The laws of the United Kingdom are, on the whole much more stringent with respect to an individual practicing without a possible qalification than here.

Doubtless means can be and are found to evade the law, but at least quacks do not get direct encouragement to pursue their calling as in many States of the Union. It is undoubtedly largely owing to this cause that the medical profession in the United States is to a certain extent in a perilous condition, and that a large number of the rank and file find it difficult to earn their daily bread. Competition among legally qualified physicians is sufficiently acute, but when in addition to this the unfortunate practitioner has to contend with a numerous and ever-increasing horde of illegitimate followers of the healing-art it cannot be said that "his lines are cast in pleasant places." In the Medical Record some few months ago attention was drawn to the question of nauseous advertisements inserted in religious journals, and we are willing to imagine that our animadversions have been from time to time thrown out with the object of protecting the ignorant public against its own folly, but no really effective steps have been taken to stamp out or even to scotch the evil. In the mean time it would seem that the most the medical journals can do is thoroughly to ventilate the matter and to urge on every possible occasion the need of prohibitive legislation against unbridled quackery Dr. Kenwood has the courage of his opinions, and "hits from the shoulder." He is to be congratulated upon his public spirit, the only pity is that there are not more like him in the medical profession.

The Value of Sunshine.

Gaillard's Medical Journal says that as time passes we are learning more of the great value of sunshine as related to health. Volumes could be written evidencing its beneficial effects in developing robustness of physique.

Outdoor life in the sunshine is helpful not only from the fact that the sun's rays are remedial, but pure air is the best eliminator and invigorator we have. The sunshine wards in hospitals invariably give convincing arguments in favor of the sun as a therapeutic agent.

Sun baths should be given daily to all

convalescents and those suffering from chronic illness.

It is well to state that every home built in an ideal way should have a large, handsome room in the top of the house which can be flooded with sunshine at pleasure, to be used always as the sick room. So, too, every such house should be built with a roof garden. No longer should the advantages of such a feature in a residence be ignored.

The greatest desideratum in selecting a climate for the victim of tuberculosis is that there should be a maximum of sunny days, such as New Mexico and Arizona.

But we need not go to distant points to secure the benefits of sunshine, for it is all around us most of the time.

We realize more and more the importance of letting sunshine into our homes and into our lives.

Dr. Carl Gerson, of Berlin, furnishes a contribution to the therapy of concentrated sunbeams in the Arch. fur Lichtherapy, Bd. I. H. 3, 1899, in which he states that he proceeded from the conviction that the stimultaneous influence on the skin of all the light rays, as nature acts through the sun, being the most rational process, he turned to account not only the blue rays alone, but all the rays of the sun.

In order to strengthen the effect, he uses a collecting lens, nine and one-half centimeters (three and three-fourths inches) in diameter and of corresponding thickness, when he has to treat skin diseases, and holds that lens at such a distance that the bundle of rays calls forth on the skin a strong sensation of warmth within the illuminated circle. As it is necessary to have the said circle under constant control, the author suggests wearing protecting spectacles of smoked glass, or else blue-colored glass.

The first experiment made on himself was in treating a septic ulcer caused by the infectious sting of some insect. The ulcer was situated over his right wrist, and reacted very little to hydrotherapeutic compresses and disinfecting salves. Then Dr. Gerson thought his case wonld be an appropriate one to try light-therapy. In consequence, he treated the ulcer, continuing compresses and salves, every day for fifteen minutes with concentrated sunbeams. After each sitting he could ascertain a diminution of the secretion of pus, a notable subsiding or leveling of the edges of the ulcer and a diminution of the inflammatory edema. The painful tension and the fever subsided. After eight sittings, the fundus of the ulcer was clean and covered with sound granulation, filling up in a few days the whole cavity, and the covering of the skin set in from the edges.

After this favorable experience, Dr. Gerson has frequently made use, in his polyclinic, of this mode of treatment in eczema, herpes, tonsurans, impetigo, contagiosa, ulcuscrusis, etc., and obtained good results.

An Advertisement.

According to the Cleveland Journal of Medicine, "Progressive Osteopathy" has come to town and W. I. Gordon, M. D., PhD., D. O., is "it." He employs canvassers to go from house to house and from office to office to distribute circulars and cards, and to urge all the afflicted to flock at once to Dr. Gordon. The circular cast about so generously is eminently lucid and consistent. In the first paragraph the reader discovers that "progressive osteopathy is the drugless science of medicine," and that "all progressive physicians in osteopathy to-day use medicine to relieve acute pain in cases that require it." Particularly lucid is the assurance that "the proper adjustment of the human system to itself cures all curable diseases." It is indeed reassuring to know that when the "system" exactly fits the "system" all is well.

"Official corroboration" is hurled at the sufferer's head from the names of Senator and Mrs. J. B. Foraker of Ohio, Governor Lon V. Stevens of Missouri, Governor Tanner of Illinois, Governor Grant of Vermont, Governor Hazen S. Pingree of Michigan. Governor Shaw of Iowa, Judge William N. Springer of the U. S. Court of Appeals of Indian Territory, Dr. E. H. Pratt [orificial] surgeon of Chicago, Congressman I H. Goodnight of Kentucky and "any member of the legislature of the eleven States in which osteepathic bills were passed"—a truly formidable array!

There then follows one sentence of 106 words in which subject, verb, predicate, and the parts of speech used by ordinary persons are replaced by a phenomenal multiplicity of words, which must prove a great solace to the sick and afflicted Seven "progressive osteopathic conclusions" are related, the exactness and verity of the first two of which indicate very well their general tenor. Thus: "1. Man is a machine. 2. He is created perfect."

Positive cures are promised in cases of "nervous affections of all kinds," of goiter, wry-neck, pleurisy, rheumatism, gout, piles, deafness, kidney affections, gallstones, locomotor ataxia and a host of other similar conditions. There is no doubt now that the real "healer" has arrived.

On one side the circular says "progressive osteopathy is the science of healing, but it is not hypnotism." On the other hand it says "most all cures *affected* for centuries have been made through the agency of suggestive therapeutics." Here evidently is a real case of Dr. Jekyll and Mr. Hyde, for it is clear from the above two sentences that Dr. Gordon the "progressive osteopath" cannot be Dr. Gordon the hypnotist. "Consultation free until further announcement" is the closing suggestion.

The Significance and Treatment of Oxaluria.

For many years physicians were wont to believe that considerable quantities of the oxalates in the urine indicated certain pathological conditions and enabled us to institute therapeutic measure for their relief says the Therapeutic Gazette. Even such accurate students of clinical medicine and of the conditions of the urine as Golding Bird, Begbie, and Prout thought the so-called oxalic acid diabetes of very considerable importance, and it was not until the investigations of Smoler, Bacon, and others that it was proved that most of the oxalic acid excreted in the urine had been ingested with the food. These remarks have been induced by an interesting article just published in the Journal of Experimental Medicine for October, 1900, by Dr. Helen Baldwin, who has been working in the laboratory of Dr. C. A. Herter, of New York. Dr. Herter's investigations into the subject of changes and conditions in the organs of secretion and excretion are, many of them well known to our readers, and we are therefore much interested in any contribution coming from his laboratory aside from the intrinsic merits of the present paper. The points which Dr. Baldwin undertook to solve in her research were as follows.

First, to discover whether oxalic acid is ever formed in the animal economy; then to estimate the influence of the ingestion of oxalic acid in foods upon the amount excreted in the urine; and finally, to study the physiological action of soluble oxalates with a view of deciding in what measure the presence of oxalic acid in the system is responsible for the symptoms attributed to the oxalic acid diathesis.

Amongst the foods which are known to contain considerable quantities of oxalic acid or oxalates may be mentioned spinach, rhubarb, dried figs, cocoa, tea, coffee, green beans, plums, tomatoes, and strawberries. On the other hand, those foods which contain practically no oxalates are various proteids, such as milk, meat and eggs, sugar, butter, corn-meal, and rice.

The conclusions arrived at by Dr. Baldwin seem to us of considerable importance, and are as follows:

1. As varying amounts of calcium oxalate may be held in solution in the urine, conclusions based upon the presence or number of calcium oxalate crystals found therein are of no real value as an indication of the quantity of oxalic acid present.

2. Unless the utmost care is exercised, the results obtained by quantitative estimation of oxalic acid are subject to large percentages of error. This is especially true in the use of Neubauer's or Shultzen's methods, in which the calcium oxalate is precipitated in an alkaline solution.

3. An ordinary mixed diet regularly contains traces of oxalic acid or its salts.

4. A portion of the oxalic acid ingested with the food may be absorbed and reappear in the urine.

5. The normal daily excretion of oxalic acid in the urine fluctuates with the amount taken in the food, and varies from a few milligrammes to two or three centigrammes, being usually below ten milligrammes.

6. In health, no oxalic acid, or only a trace, is formed in the body, but that present in the urine has been ingested with the food.

7. In certain clinical disturbances which were associated with absence of free hydrochloric acid from the gastric juice, oxalic acid is formed in the organism.

8. This formation in the organism is connected with fermentative activity in the alimentary canal.

(*a*) The prolonged feeding of dogs with excessive quantities of glucose, together with meat, leads eventually to a state of oxaluria.

(*b*) This experimental oxaluria is associated with a mucous gastritis, and with absence of free hydrochloric acid in the gastric contents.

(*c*) The oxaluria and the accompanying gastritis are referable to fermentation induced by the excessive feeding with sugar.

(*d*) The experimental gastritis from fermentation is associated with the formation of oxalic acid in the gastric contents.

9. The symptoms attributed to an oxalic acid diathesis, with the exception of those due to local irritation in the genito-urinary tract, do not appear to be due to the presence in the system of soluble oxalates, but are more likely to depend on other products of fermentation and putrefaction.

These conclusions are of considerable interest because they throw some light upon

the method of treatment which has long been known to medical clinicians, and because there has been, so far as we are aware, no adequate explanation, namely, the fact that in certain cases of melancholia associated with oxaluria, the administration of full doses of freshly prepared nitrohydrochloric acid will often do great good. It has been thought by some that this acid, under certain circumstances, influenced the action of the liver; and this may be true. But it would seem more probable from Dr. Baldwin's researches that the acid acts by preventing fermentation in the alimentary canal, and that it also aids the gastric juice in properly dealing with food, since, as she points out in the conclusions already quoted, there is often an absence of free hydrochloric acid from the gastric juice when oxalic acid is formed in the organism; and further than this, that it is possible to produce an absence of free hydrochloric acid in the gastric contents by the artificial induction of oxaluria. Finally, it is also possible that the antiseptic influence of this acid in the stomach, by preventing fermentation, prevents the formation of oxalic acid in the gastric contents.

The Surgical Treatment of Puerperal Sepsis.

According to Obstetrics the marked differences of view held by obstetricians and gynecologists as to the question of operative treatment of puerperal infection are in no way due to confusion over what may be the proper surgical procedure in a known pathological process, but to a want of diagnosis. There might be no opposition to the question of hysterectomy for the uterine body and adnexa which are filled with many pockets of pus that cannot properly drain into the cavity of the organ; nor for free puncture and drainage of purulent infiltrations of the broad ligaments and neighboring parts; nor to flushing and drainage in certain conditions of peritonitis; but the worry of the profession at large is to know when these conditions exist. In truth, it is the worry of the operators, who would be leaders as well. The most remarkable feature of present writings on this question is not what is said, but what is not said, in the arrangements brought forward. There is a constant suggestion of the old nursery sayings, such as "First catch your hare" and "You can easily catch a robin if you only put a little salt on his tail." Operate, yes; but when? In certain forms of infection speed is objectionable, i. e., the infiltrating cellular variety; in another form delay is fatal to success, the *foudroyante* type, in which the germs fly like winged messengers along the tracts of the lymphatics or veins.

It is a very small per cent. of cases of puerperal infection that ever requires operation, therefore, it is a very small per cent. of cases on which we operate in which the diagnosis is actually made before the exploratory incision is made. We come, then, to the question of whether an exploratory incision in cases supected of being in need of operative measures will be so free from danger as not to produce a greater mortality than follows in cases treated by non-operative methods. This question is not being treated as fairly and impartially as it should be. There are a number of physicians, more gynecologists than obstetricians, who have had relatively little experience in treatment of infected cases by non-surgical measures and have not, therefore, a proper sense of the conservative tendency of these case to recovery, who discusses the needs of operation in isolated simple cases, and to the satisfaction of all in this respect, but who do not weigh the dangers from operation in their true balance against all cases. Nor are they at all clear in determining how to make the diagnosis. To undertake to forestall the general distribution of streptococcic infection is most desirable, but are we to operate every time we think a case is moving to such a form? We have had many cases that so threatened which did not become systemic, and if we had operated we might easily have increased the mortality instead of preventing it. To the obstetrician, who treats his cases carefully, as in a large hospital service, who has every opportunity to watch them in all their varying moods, two views are forced upon him —that very few cases prove the need of operation, and, that the argument of the bed-side is strong for conservatism. The most crying need of the hour is differential diagnosis. Examinations of the vagina, cervix, and secretions of the uterus and vagina for exact bacteriological knowledge of the infection, when made promptly with the beginning of symptoms, will enable us to check many cases by direct local applications. An exact knowledge of the character of the labor through which the patient passed will help in learning of actual conditions. Thus some cases suggest the presence of thrombi in the sinuses because the patient had an exhaustive labor with hemorrhage from the placental site and final cessation of the bleeding through general circulatory weakness; or she had prolonged stasis of the head at a given point which suggests possible necrosis of a small part of the uterus with underlying germ growth in

the line of separation, or she had become very edematous before delivery, with dryness of the vagina and vulva, a condition bringing the tissues into a most favorable candition for infection and its rapid extension; or she has had secondary post-partum bleedings with probable formation of blood-clots in the cavity which may not be expelled until they have softened by decomposition. All such conditions indicate the lines of surgical treatment and are very helpful to diagnosis when known. There is a great field here for further investigation as to the individual behavior of the several germs which produce infection. Our present knowledge is very limited, considering the importance of the field. We need reports of a thousand cases of gonorrheal infection alone, of the streptococci infection, and of each of the others, and also these in combinations, with extended study of their characteristics. Such cases in large numbers will, in all probability, bring out many little peculiarities of habit and idiosyncracy of the several tribes of microbes. We will have such information ere long, for many obstetricians are accumulating such data. We have tried to treat it specifically by a number of remedies, and they have all failed us. We may find a specific, but our present duty and opportunity is to accumulate all possible data of every exact reports of many cases of infection.

Smallpox and Vaccination.

The Medical Record says that the outbreak of smallpox on the West Side of New York City, although so far not especially alarming, will doubtless tend to impress upon the minds of its inhabitants the need of vaccination and revaccination. Indeed, if it has this effect, the activity of the disease—restricted though it be—will prove a "blessing in disguise." It speaks volumes for the intelligence of the American people as a whole, and of this State in particular, that there has never been evidence of an organized opposition to vaccination. Among a minority of the inhabitants of the United States a certain prejudice against vaccination exists, but with the bulk of the population the sentiment with regard to the operation is one of apathy, or rather of indifference. It is so long since an epidemic of smallpox on a large scale and in a virulent form appeared in this part of the country that many persons are sceptical as to the dangers to be feared from such an occurrence. Without wishing in any way to act the part of alarmist, we would nevertheless sound a note of warning, and advise parents not to be lulled into a state of false security. The fact that as a community we are well protected cannot be denied, but if the practice of vaccination be allowed to fall into disuse it is impossible to say for how long this happy condition of affairs will last. A few apropos truths concerning the benefits conferred by vaccination may at the present time be of interest. The following statistics are culled from an able article on the subject written by Dr. C. D. Smith, president of the board of health of the State of Maine: The German law of 1874 makes vaccination obligatory in the first year of life, and also revaccination obligatory at the tenth year. This law in Germany resulted from the epidemic of 1871, with its one hundred and forty-one thousand deaths, among a population in which vaccination had been allowed to die out. Prior to 1874 the yearly loss was fifteen thousand to twenty thousand. The present rate is less than one hundred and sixteen per year, and these cases occur on her borders, where there is constant mingling with the poorly vaccinated of other countries. The disease does not spread or become epidemic among well-vaccinated people. It does so develop among the unvaccinated. During the Franco-German war the inevitable mingling of the two peoples spread smallpox, which was epidemic. The Germans had made vaccination optional for its civil population, but compulsory for its army; the French having made it optional alike for army and population. The French lost from smallpox twenty-three thousand men; the Germans two hundred and seventy-eight. Occupying the same hospital tents, with the same surroundings, the French wounded lost many from smallpox; the Germans, not any. The French prisoners of war died by the hundreds; their German guards, who had been vaccinated and revaccinated, suffered not at all. In Denmark, Sweden, and Norway, where, as well as in Germany, vaccination is compulsory, the annual death rate is from one to three per million. In England and Wales, before the introduction of vaccination, the mortality was three thousand per million; since the introduction of vaccination it has been reduced seventy-five per cent. From the time that statistics were first collected, facts confirming the ravages of the disease in unvaccinated communities have been unvarying, and the reduction of its prevalence and of the death rate after vaccination has received equal confirmation. Among savage races and in other unprotected communities smallpox invariably attacks almost all who are exposed to its infection. When a partially

protected community is attacked the victims selected are the unvaccinated. This has been demonstrated over and over again on this continent among the North American Indians and in Mexico, where in both instances the populations of entire villages were completely wiped out. Observation has also shown that when the vaccinated are attacked by smallpox the disease is in them in a modified form. The contention is not made that vaccination is an absolute preventive, but it is asserted that it modifies and controls the disease to a very considerable extent. The great majority are protected by vaccination, and with those affected the danger to life and disfiguring marks are avoided. In short, vaccination changes the whole course of the malady. Much of the prejudice that undoubtedly exists against vaccination is due to the fear that by the use of unclean lymph, or by the performance of the operation in a careless manner, certain diseases may be transmitted to the person operated upon. In times gone by this dread was sometimes warranted, but at the present time, by special preparation and storage, the lymph is rendered practically harmless, and provided that the operator is careful and practices aseptic methods no ill effects are likely to result. Revaccination should be undergone at the age of puberty, and as a measure of precaution in those places where smallpox is prevalent. The health authorties in this city are taking energetic steps to check the spread of the disease and may be depended upon to succeed in their object, but at the same time we would advise every one who is in a fit state of health to be revaccinated. Especially is it incumbent upon parents in the interest of public health to order their young children to be vaccinated.

The Question of Diet in Bright's Disease.

In discussing this subject the Therapeutic Gazette says: "We have on a number of occasions called the attention of our readers to the change which is taking place in the opinion of skilled clinicians concerning the diet which should be instituted in the treatment of chronic nephritis. It will be remembered that on one occasion we pointed out that in many instances a diet of unskimmed milk is very much better for the patient than a diet of skimmed milk, although the latter is the one which is usually advised; the advantage in the unskimmed milk over that which has been skimmed depending on the fact that it contains more of the cream, and is therefore more nutritious. While it is true that some patients are not able to digest the cream, others are quite able to do so, and should not be denied the advantage to be gained by this increase of nourishment.

Again, we quite recently called attention, editorially, to the fact that investigation failed to reveal any good reason for forbidding such patients the use of red meats and allowing them white meats; the two varieties of meat differing one from the other so slightly in their constitution that one could not be considered more harmful than the other. Our attention has been called once more to this important matter by the review of the treatment of Bright's disease which has been contributed by Prof. J. Rose Bradford, of University College, London, to the volume of "Progressive Medicine" for December, 1900.

As he well points out, the principle of the treatment of Bright's disease is chiefly to spare the kidneys as much as possible, because of the very prevalent view that owing to the damaged condition of the renal structures the excretory activity of the organ is very considerably impaired, and for this reason it has been the custom to cut down the nitrogenous ingests as much as possible. It is on this basis that the milk diet in Bright's disease was instituted. But the matter is not as simple as it seemed at first sight, since the proteid ingests cannot be diminished below a certain quanty, and it is well known that during starvation the excretion of nitrogen is still fairly free. If proteid food is to be strictly withhold from the patient his proteid tissues will undergo disintegration; and on the other hand, if too much proteid is given, it may be disadvantageous.

It would seem probable, too, that in severe cases of nephritis there is a rapid breaking-down of proteid material, so that the patient rapidly loses strength and weight, unless he is provided with a considerable quantity of food containing albumen, and doubtless in many instances a rigid adherence to a strict milk diet actually tends to weaken the patient.

More recent clinical observers have shown themselves to be in favor of allowing a more liberal diet, on the ground that with the improvement in general health we might expect an improvement in the condition of the kidney. Or, to express it in Bradford's words: "The modern tendency is not to restrict the diet in cases of chronic Bright's disease to the same extent as was formerly the case."

Patients with chronic Bright's disease may pass as much as from twenty to forty grammes of dry proteid in their urine each day—an amount equivalent to that found in

one to two pints of milk. Inasmuch as the minimum amount of proteid necessary for an adult is that contained is from three to to four pints of milk, namely, from seventy to eighty grammes, it is obvious that a milk diet may at times be insufficient. Further than this, it is perfectly possible that the administration of many pints of milk a day dilate the stomach and overload the digestion. While permitting the patient to use a liberal diet may considerably increase the amount of albumin in his urine, this should not be considered the chief gauge as to the advisability of this free feeling, but we should study the patient's general condition and if he improves in strength and nutrition under the increased diet, it is a fair supposition that the advantages gained are of greater value than the disadvantages associated with an increased albuminuria.

Mills had also recently written upon this subject, and expresses the belief that red meat is permissible to many of these patients once a pay, and that chicken, eggs, and fish may all be used. There are two other points which it is important for us to remember in this relation. One is that alcohol should be forbidden to all these patients except in rare instances, and the other is that in acute nephritis, which is an entirely different condition from that which we have been discussing, a rigid milk diet is usually to be insisted upon.

These remarks are still further indorsed by the paper of Robin, of Paris, recently published and quoted in the British Medical Journal of October 13, 1900:

"In a paper on this subject* read in the Section of Therapeutics at the recent International Congress of Medicine, Robin said it is recognized that the same system of diet is not suitable for all sufferers from Bright's disease. In particular the exclusive use of milk causes in some of them an increase, at least for a time, of albumin in the urine. Further researches prosecuted for many years have convinced him that an exclusive milk diet diminishes albuminuria always less than a vegetable diet, sometimes even less than the use of meat alone. In all cases a mixed diet of milk and vegetables or of milk and meat has a better effect than the exclusive use of milk. The following is the system that he adopts for the purpose of ascertaining the regimen most suitable for each patient. He begins by giving only milk. This has the effect of first increasing the amount of albumin in the urine; then it diminishes, and remains stationary. At this stage vegetables are added to the diet. New oscillations are then produced; when these have ceased meat is cautiously allowed, whilst milk and vegetables are continued. In this way it is easy to ascertain which of the three systems of diet—milk, milk and vegetables, or milk, vegetables, and meat—brings about the most marked diminution in the amount of albumin eliminated. It is important, also, to ascertain the value of each alimentary substance in regard to the production of albiminuria. Some researches which Dr. Robin has made on this subject have led him to the following conclusions: Bread has no effect on the albumin; wine causes an increase; amongst meats, beef and veal are more to be recommended than mutton or fowl; fish should be forbidden."

Oysters and Disease.

The Boston Medical and Surgical Journal says that with the advance of our knowledge of the subtle and unexpected ways in which disease may be transmitted, suspicion has from time to time, and not unjustifiably, fallen upon the oyster. It has been easy for a somewhat vivid imagination to picture the contamination to which oyster beds may be exposed, and to conceive of the possible multiplication of pathogenic bacteria or other agents inimical to health within their shells. Admitting these facts, it is a short step to imagine the effect upon man of eating such oysters and to add another terror to the constantly increasing number with which we are surrounded. Fortunately in this, as in many other matters, an appeal to experiment does much to clear the way for a calmer and more rational interpretation of the facts. This service has lately been rendered by an exhaustive and painstaking study on the general subject of oysters and diseases undertaken by Prof. W. A. Herdman, of Liverpool, and Prof. Robert Boyce, also of Liverpool, and both of University College. Their work is published in full, with plates, in the second volume of the Thompson Yates Laboratories Report, and well repays a careful perusal. The conclusions of these investigators are of moment, and should be generally known both by the raisers and consumers of shellfish. In general their experiments, in common with those of others, go to show that oysters and other shellfish used as food must from their nature and the circumstances of their cultivation and sale be regarded as liable to contamination from pathogenic and other organisms or their products.

Recognizing this fact, the following statement made by the writers is sufficiently self-evident:

"Shellfish must not be taken as food from grounds where there is any possibility of sewage contamination; after removal from

the sea, while in transit, in store, or in market, they should be carefully protected from any possibility of insanitary environment; they should not be kept longer than is absolutely necessary in shops, cellars, etc., in towns where, even if not running the risk of fresh contamination, they are under conditions favorable to the reduction of their vitality, and the growth of their bacterial contents—the fresher they are from the sea the more healthy they are likely to be; finally, only absolutely fresh shellfish should be eaten uncooked, and those that are cooked must be sufficiently cooked, raised to boiling point and kept there at least ten minutes."

Among the details of their experiments several matters of great interest were brought out. The vexed question of "greening" in oysters was one. The investigation showed that there are several perfectly distinct varieties of greenness, some being entirely healthy, and others indicating an excess of copper; in certain American oysters, for example, it was distinctly proved that their green color was due to copper, and also that the copper is situatuted in the blood cells, or leucocytes, which are much increased in number. This condition they call a green leucocytosis. On the other hand experiments in feeding oysters with weak solutions of copper and iron salts gave no clear evidence of any absorption of the metals accompanied by greening.

The investigations on the presence of typhoid bacilli in oysters is also of much importance. They did not find the bacillus in any oysters obtained from the sea or from markets, but were able experimentally to inoculate oysters with typhoid and recover the organism from their bodies up to the tenth day. It appears, however, that the bacilli do not increase in the body or tissues and probably die in the intestine. Sea water was found inimical to the growth of the bacilli and the washing of infected oysters in a stream of clear sea water led to a great diminution or, in some cases, a total disappearance of the bacilli in from one to seven days. The colon group of bacilli is frequently found in shellfish, but probably not in those living in pure sea water. It is unsafe, however, to infer from this that the presence of colon bacilli invariably indicates sewage contamination. Further investigation on this point is desirable.

The writers inform us with reference to the negative results regarding typhoid that their samples of oysters were in no case, so far as they were aware, derived from a bed known or suspected of contamination with typhoid.

As a result of their investigations they feel amply justified in sounding a warning note regarding the raising and selling of oysters. They urge the greatest possible care in the prevention of contamination, and for the regular inspection of the grounds by qualified persons.

Foreign oysters should be as carefully inspected as those raised at home, and a systematic quarantine established.

The report is, in a general way, reassuring, and yet, throughout, it recognizes a real danger, provided the utmost precaution be not taken to guard the oyster beds as we would any other source of food supply. It is well that we should be fully aware of all the facts and insist upon the legal enforcement of close inspection. When this is done we may, no doubt, still enjoy our oysters, with the practical assurance of their harmlessness.

MISCELLANEOUS.

Physicians Want to be Paid.

We understand that "a movement is on foot among physicians officially visiting the public schools of Philadelphia to ask for payment at the rate of $50 per month for each physician. * * * * Those opposed to the movement say, that when the visits were first begun it was clearly understood, and stated, that the services were to be entirely voluntary, so that any effort now made to obtain remuneration might result in the abolition of the visiting staff, contrary to the best interests of the schools and the general public. Some argue that the sum named would be exorbitant for the services rendered."

This serves to remind us of what the whole world knows, that physicians as a class are possessed of less *good business sense* than men in any other avocation in life. We are doing all we can to make medical paupers out of the general public. It is all well enough, and right, that we be charitable to the deserving poor, but why should we give of the best work of our best years to a thankless public, without any compensation? By so doing we only degrade the profession of medicine in the estimation of the public, and render our calling unremunerative. The public should pay for services rendered by physicians at the city schools, and pay well. That such is not the case is largely the fault of the doctors. We cannot agree with the eccentric Boerhaave, who was wont to say: "The poor are my best patients, for God is their paymaster."—*Chicago Clinic.*

The Metric System.

A bill is passing through the various stages in Congress which, if it becomes a law in its present form, will encourage the adoption in the United States of the metric system of weights and measures on Jan. 1, 1901. The bill has been reported favorably by the committee on weights and measures, and therefore there is a probability of its becoming a law. The friends of the measure, however, are not over sanguine, knowing that much opposition is still to be met. It is not to be denied that changing from the present cumbersome and complicated system, with its variety of units, to the simple one used by all except English-speaking people, will upset business and cause confusion in the commercial world. Substituting the meter for the yard alone would play havoc in our dry goods stores. But all this confusion would soon subside and a little preparatory education would remove much of the difficulty when the time came to meet it. It is a change that will not be made all at once, but will be done by degrees. The sentiment for this change may be a growth. In medicine, the system has already been more or less in use, as the American Medical Association, in 1879, passed a resolution looking to its adoption. Other scientific bodies have also taken similar action and in various ways have encouraged its use. It has not been as readily accepted as it was hoped, but each year the number using it is increasing. All first-class pharmacists are familiar with the metric system and can fill a prescription written in it as well as one written in the old apothecaries' measure. Hence, if Congress should authorize the adoption of the system on Jan. 1, 1901—and we certainly hope it will—the medical profession will be ready and more than willing to adopt it.—*Jour. A. M. A.*

Diagnosis of Ambulance Surgeons.

We still occasionally hear, and we seem to be destined to continue to hear, for lo! these many years, of the occasional errors of the ambulauce surgeon who fails to recognize the combination of a fractured skull with an alcoholic breath, and who occasionally lapses into other little sins of commission and omission. We feel kindly disposed towards him, however, and deem it certain that he is justly entitled to the sign employed by a performer in wilder regions of our country, requesting the audience not to shoot as the artist was doing his best. It seems to us as a matter of fact, that he is loaded down with greater responsibilities than should fall to his share. Any individual profoundly affected by alcohol, for instance, ought to be recognized as a fitter subject for the hospital ward than for the cold comforts of the cells of police stations. Many bad and often fatal cases of pneumonia result from the hospitality of these stations, which might be avoided by treating that pitiable class of men who people these cells a little less like brutes and a little more like poor wrecks of humanity entitled to some sort of protection. But no, there is no room for them in our hospitals unless delirium tremens renders them dangerous to others than themselves. The ambulance surgeon who brings in an ordinary case of alcoholic coma is scoffed at, and ribald remarks assail him, and his life is made bitter for him with wormwood and gall. Thus he learns to dread a plain drunk attended with no delirious trimmings, for he knows he will be ill received unless he has been compelled to sit upon the patient, to the best of his ability, and to strive with him or her, and exchange black eyes and other amenities to the tune of the clangor of a bell of tripple brass.—*International Journal of Surgery.*

Voodooism North and South.

In Mississippi it is said a society has recently been organized, the object of which is the suppression of voodooism and voodoo doctors. Voodooism is a sort of African "Christian Science," modified by the special theologic predilections of the race. With the savage African who originated the voodoo cult followed by some of his descendats in this country, the supernatural powers are not beneficent, and, together with those that have most influence with them, are to be placated if possible, hence the voodoo superstition. It is the belief of the negro that disease can be caused by the prayer and incantation of the voodoo doctors, who, like the C. S. D.'s, thrive on the faith of their fellows. There is no excessive difference between the two; it is only in the point of view; the practice is not specially different. The Mississippi voodoo is not, so far as known, charged with the atrocity in his ritual of infant sacrifice after the manner of his coworkers in Hayti, or as it is done through neglect by his more northern co-operators, and in that respect may be considered more respectable than either, but they come together in many points. It is said that the original African cult is spreading in the South and involves not only the blacks by many of the whites, who live in daily fear of voodoo incantations. The recent suicide of a white man, induced by this dread, has called renewed

attention to the society and its objects. The civil authorities who have been indifferent heretofore, are to be invoked, and it will be interesting to note the progress of the reform. If the movement could only extend northward and incite the vigorous action of the law against passive child-murder by northern voodooists, of whatever designation, it would be a good thing.—*Jour. A. M. A.*

The Cutaneous Absorption of Methyl-oleo-Salicylate.

By Ed. Gros, Paris.

There can be no doubt of the great advantage of administering the salicylates cutaneously instead of internally, especially where large and repeated exhibition of the drug is required. Salicylic acid itself, however, cannot be employed as an ointment or liniment, on account of its caustic action, which renders the skin impermeable after a short time and wintergreen has been therefore recommended to replace it.

Not only is the pure salicylate of methyl (found in wintergreen, betula lenta, and other natural sources) vastly superior to the artificial salicylate of soda in its influence on the organism, but in addition, it possesses the notable property of penetrating the skin with great rapidity and entering into the general circulation. Oil of wintergreen is a pure methyl salicylate, but it is no longer found in commerce on account of the cheapness of the artificial salicylate of methyl, (whose physical characteristics resemble the true wintergreen, and can only be detected by its disappointing physiological results, besides, it is never free from the danger due to the presence of toxic impurities, which give rise to alarming symptoms if absorption is long continued.

The synthetical methyl salicylate (and even true wintergreen or sweet birch oil, however, often produces irritation and redness of the skin so that only small quantities can be applied on any one particular spot at a time, but *methyl-oleo-salicylate* or *Betul-ol*, is free from any of these objections and is perfectly harmless, anodyne and non-irritant, even when applied with friction. This is the most practical method of administering salicylate either internally or externally and far from lessening the faculty of absorption through the skin, this increases with each application and can be traced as salicylate acid, in the urine, a few mintes after application.

Betul-ol is a *compound methyl-oleo-salicylate* derived from *butela lenta*; it is more quickly absorbed and is not more expensive than wintergreen oil besides having great advantages as a means of relieving the symptom pain, almost as soon as applied. It is absorbed when applied on any part of the body, which however should first be washed with a little warm water and it is even unnecessary to apply it to the painful part, where there is great tenderness.

The alkalinity of the blood converts Betul-ol into salicylate of soda during its absorption through the capillaries, and at the same time, the sedative action of the methyl radical is produced. The amount of salicylate of soda thus created in the blood itself (a distinct advantage over its exhibition by the stomach, which rarely tolerates large and useful doses) is exactly equivalent to the amount of Betul-ol absorbed, so that one minum of Betul-ol represents one grain of salicylate of soda and very much smaller doses suffice, as compared with the dose required internally, to relieve the pain in acute rheumatic affections.

In a normal individual there exists an insufficient quantity of carbonic acid in the blood to liberate salicylic acid from its salts, but if experimentally or pathologically there is an increase of this gas, the acid regains its free state.

Kohler has attained these conditions in the laboratory and under certain pathological conditions, the tissues themselves contain an excess of CO_2, which readily decomposes salicylate of soda. In a violent local inflammation then, such as is produced by an attack of acute articular rheumatism, a nascent acid is formed at the very seat of the lesion, and a powerful antiseptic action, is exerted.

This would also explain the efficiency of Betul-ol in local inflammations, such as tonsillitis, iritis, urethritis, gonorrhal epididymitis, etc., and why salicylates produce diminution of germ life, and antagonizes rheumatism which is considered by many to be an infectious germ disease. The fact that failures with salicylates are more frequent in chronic forms of rheumatism is not a contraindication to the cutaneous administration of Betul-ol, for the same fact holds good at all forms of treatment as applied to chronic disease.

For a rheumatic joint, the effects of the methyl-oleo-salicylate are the same as in cases of gout, acting on the theory of the elimination of uric acid and allied oxidation products by combination with salicylic acid.

Betul-ol may be used alone or to supplement the internal exhibition of Colchi-Sal in gout and gouty rheumatic cases, and it

Rockbridge, Va., Alum Water.

That are of Intrinsic Value to the Medical Profession.

Extract from a paper read before the Atlanta Society of Medicine, April 26, 1887, by JOHN S. TODD, M. D., Professor Materia Medica and Therapeutics, Atlanta Medical College, Ga.: Ex-President of Georgia Medical Association; not read in our interest, but in the interest of Science and his profession:

"Some four and a half years since I had, among other cases, one of dysentery, which resisting all medication, became chronic, and a LARGE ULCER OF THE RECTUM DEVELOPED. I called in consultation a noted surgeon. The patient's condition was one of extreme emaciation; blood and mucus in large quantities were voided about an average of once an hour. The dose of opium had been increased to 3 dr. laudanum in twenty-four hours and ½ gr. morphine twice a day, and still matters grew worse. We decided to inject solution 30 grs. to oz. nit. silver in rectum. The result was a COLLAPSE that nearly proved FATAL. Upon it being suggested later that the operation be repeated, the patient, a young man, said if we and his family insisted, to avoid it HE WOULD COMMIT SUICIDE. Dr. W. S. Armstrong was then called in with me. He suggested an exclusively milk diet, gradual reduction of opium, and ROCKBRIDGE (VA.) IRON AND ALUM WATER. Immediate improvement set in, and in TEN DAYS so great was THE CONSTIPATION that oil and enæmas had to be resorted to to procure an evacuation from the bowels. Since that time I HAVE TREATED SEVERAL CASES EQUALLY AS BAD, WITH SAME HAPPY RESULT, using same diet and medicines, for of all agents for this disease, I consider THE ROCKBRIDGE ALUM AND IRON WATER THE FIRST. It is equally EFFICACIOUS in CHRONIC DIARRHŒA, AS MY RECORDS ATTEST."

DR. TODD, March 21, 1900, writes: I have for 16 years used these GRAND WATERS constantly in my practice with increased and increasing satisfaction, I inclose you article written 3 years ago on opium. "In chronic diarrhœa and dysentery, the milk diet, ROCKBRIDGE ALUM WATER, and small doses of opium given cautiously—very cautiously lest your patient acquire the opium habit—has proved so INVARIABLY SUCCESSFUL with me, that I have COME TO TREAT THESE ASES with CONFIDENCE BORN OF SUCCESS."

DR. HUNTER MCGUIRE, Virginia's great surgeon, says: As an astringent and tonic it is one of the most valuable I have ever used.

DR. S. GAILLARD THOMAS, Professor College of Physicians and Surgeons, N. C.: Most efficient astringent and tonic waters I have ever employed.

Write JAMES A. FRAZIER, Mgr. Receiver, Rockbridge Alum Springs, for Pamphlet.

has over the exclusive internal medication, the immense superiority of acting *loco dolenti* and without disturbing the digestive functions.

The penetrating power of Betul-ol has been recently applied in the treatment of endo-metritis and its complications, salpingitis, etc., and especially in blennorrhagic cervical endo-metritis, (by painting the cervix); it also promptly relieves puritus, prurigo and lichen simple. Betul-ol in fact is applicable wherever we look for local anti-rheumatic, anti-podagric and antiseptic results. To ensure proper absorption the part should be covered with a soft impermeable tissue (gelatino-silk tissue is best), and afterwards enveloped in cotton wool to maintain the temperature.

Betul-ol contains no morphine or cocaine, but these may be added in prescribing if desired; it is soluble in all proportions of ether, alcohol, chloroform or oils and may be used either pure or in combination as a liniment.

The City of Buffalo, N. Y., has been submerged in an atmosphere of stench eminating from the drying of rotten and sour grain that was taken from an elevator after a distructive fire. The grain was distributed to various malt houses within the city limits for the purpose of drying. Some 600,000 bushels were thus made to contribute to the discomfort and illness of the people. There was no abatement of the nuisance until the grain was dry, after which an ordinance was passed regulating the drying of wet grain within the city limits. The people of Buffalo feel that their city's good name has been smirched and that dishonor has been brought to its municipal administration. Too often, the making of money and good sanitation do not always harmonize.—*Woman's Med. Jour.*

An outbreak of typhoid fever has occurred in Lambeth, England, owing to infected mangles. Forty-one cases occurred in twenty-four houses, all within a restricted area. There was much inter-communication between places and famlies living in different houses. Many of the inhabitants after washing their clothes in their own homes took them to some neighbor to be mangled. Owing to this custom, bedding and clothing of those ill with typhoid fever were mangled in the same machine, thus spreading the disease. Four different infected mangles were traced.—*Scientific American.*

Cuban Itch.

It is time that the State Boards of Health should be more rigorous in isolating all cases of suspected smallpox. It is time that wide dissemination should be made of the fact that Cuban itch and names which are used to cover up smallpox cannot possibly keep down the spread of smallpox itself. In the numerous country towns in this State, Illinois, Arkansas and other States, cases of Cuban itch are reported from time to time, not with the full significance of smallpox, but as a sort of apology for the recent Spanish-American war, and as a necessary outcome of relations resulting therefrom. To the vast majority of people this term may carry with it some idea of contagion, but not the full conception of contagion and infection of smallpox. Almost every few days a death from Cuban itch is recorded, and people read without feeling that the community is in any danger from smallpox. The knowing ones protect their business by the use of the term, for the word smallpox is a great destroyer of commercial interests, which they consider paramount to the health of the people. In the country town this spirit is fostered largely by the local press, so that the community suffers as real epidemic, although in fancied security. It is time, we say, that the people at large should be informed in no uncertain words that Cuban itch is smallpox, and that quarantine regulations should be adopted against Cuban itch quite as much as against smallpox.—*St. Louis Medical Review.*

Mob Law in Colorado.

On the 9th of this month a young negro section hand waylaid a school girl on her way home, near Limon in this State, and after raping her left her for dead with a boot-crushed skull and a number of ghastly dirk wounds. She was found and taken home, but died the same night without recovering rational consciousness. Suspicion was soon fastened upon the criminal. He was arrested in Denver and after the circumstantial evidence was complete, confessed to the crime. A week after the murder he was taken back by the sheriff of the county where the crime was committed, was seized by the residents of the district and promptly burned at the stake. The following Sunday there was held a mass meeting in a leading Denver church to protest against the action of the mob (if such it may be called) in the case cited. The meeting was conducted by preachers, philanthropists, pettifoggers and politicians for the benefit of sensationalists. The would-be philanthropists were chiefly of the Oh, my! species, who rant against vivisection and wear dead birds on their bonnets and deem a dog's life of more value than a child's. The pettifoggers were of the type that would try to clear any criminal for a sufficient retainer. The politicians were just of the ordinary stripe and included the gubernatorial gabbler. These good people adopted suitable resolutions after much ado and adjourned.

Now the question is, would the resolutionists in the place of the ranchmen have done much differently? That the black fiend deserved death no one but a pervert will deny, yet there is no death penalty in Colorado, and he had already served a short sentence in the Kansas reform school for a similar crime, minus the murder. Burning at the stake is certainly a terrible death, yet the ten minutes' torture which the negro suffered was as nothing to the roasting for eternity which our orthodox ministerial friends still promulgate more or less. If the chief object of punishment is to deter others from the perpetration of similar crimes, then surely this was a shining and fearful warning to evil-doers. One chief objection to mob retribution is that an innocent man may suffer instead of the guilty, but in this instance there could be no mistake. The summary justice of vigilant committees is to many honest people more satisfactory than the uncertain trickeries of the law's delays. After all, to the medical mind, the most impressive phenomenon is the psychic storm by which the minds of a multitude are often swayed by emotion in one direction, as the trees of the forest bend collectively to the sweep of the blast.—*Denver Medical Times.*

Typhoid Fever at Galveston.

Galveston is reported to be threatened with an epidemic of typhoid fever. There is a great deal of sickness prevalent in the city and physicians say that the majority of patients have developed typhoid symptoms. A number of cases have occurred among persons living on the water-front. There are twenty-one cases now under treatment in St. Mary's infirmary, and seven at the Sealey Hospital, and more would be at the hospital if rooms could be obtained. The outbreak and spread of the disease are due to the unsanitary condition of the city, and the impurity of the cistern water, the only means of supply for many families. Many persons are crowded together in buildings and tents that barely protect them from the inclemencies of the weather.—*Medical News.*

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The word Listerine assures to the Medical Profession a non-poisonous antiseptic of well proven efficacy; uniform and definite in preparation, and having a wide field of usefulness.

On account of its absolute safety, Listerine is well adapted to internal use and to the treatment of Catarrhal Conditions of the mucous surfaces.

LITERATURE DESCRIBING THE BEST METHODS FOR USING

Listerine in the Treatment of Diseases of the Respiratöry System

WILL BE MAILED TO YOUR ADDRESS, UPON APPLICATION.

We beg to announce that, in addition to the 14 oz. bottle, in which Listerine is offered to the trade, the pharmacist can now supply a smaller package, containing 3 fluid ounces, which is put up for the convenience of practitioners who prefer, upon certain occasions, to prescribe articles of established merit in the Original Package, under the seal and guarantee of the manufacturer.

FOR DISEASES OF THE URIC ACID DIATHESIS:

Lambert's Lithiated Hydrangea

RENAL ALTERATIVE--ANTILITHIC.

The ascertained value of Hydrangea in Calculous Complaints and Abnormal Conditions of the Kidneys, through the earlier reports of Drs. Atlee, Horsley, Monkur, Butler and others, and the well-known utility of Lithia in diseases of the uric acid diathesis, at once justified the therapeutic claims of LAMBERT'S LITHIATED HYDRANGEA when first announced to the medical profession, whilst subsequent use and close clinical observation has caused it to be regarded by physicians generally as a very valuable Kidney Alterative and Antilithic agent in the treatment of

Urinary Calculus, Gout, Rheumatism, Cystitis, Diabetes, Hematuria, Bright's Disease, Albuminuria, and Vesical Irritations Generally.

Realizing that in many of the diseases in which LAMBERT'S LITHIATED HYDRANGEA has been found to possess great therapeutic value, it is of the highest importance that suitable diet be employed, we have had prepared for the convenience of physicians,

DIETETIC NOTES.

suggesting the articles of food to be allowed or prohibited in several of these diseases. A book of these Dietetic Notes, each note perforated and convenient for the physician to detach and distribute to patients, supplied upon request, together with literature fully descriptive of LAMBERT'S LITHIATED HYDRANGEA.

LAMBERT PHARMACAL CO., ST. LOUIS.

American Medico-Psychological Association.

JANUARY 11th, 1901.

TO MEMBERS:

The next annual meeting of the American Medico-Psychological Association will be held in Milwaukee, Wis., June 11, 12, 13 and 14, 1901. The date has been placed a little later than usual that this deservedly popular convention city may be visited at a pleasant season.

Hotel Pfister, selected for the meeting of the Association, has ample accommodation for all members and offers specal rates. Its rooms are airy, spacious, and well furnished; it has an excellent auditorium, a pleasant restaurant, and a large banqueting hall.

A full attendance at the meeting, which promises to be one of unusual interest, is earnestly desired.

Will those members expecting to read papers, kindly send titles thereof to the Secretary as early as possible.

It is announced with much satisfaction that Dr. Warren P. Lombard, Professor of Physiology in the University of Michigan, will deliver the annual address. This will have to do with Re-enforcement and Inhibition of Nervous Processes.

Very respectfully,

C. B. BURR, Secy.

The Multiplication of Bacteria.

A single bacterium has been calculated by Nageli to weigh one ten thousand millionth of a milligram. The length of a generation is from fifteen to forty minutes. Supposing all the conditions for multiplication to be favorable the results are appalling. Cohn has estimated that a single germ can produce, by simple fission, two of its kind in an hour; in the second hour these would have multiplied to four; and in three days they would form a mass of four thousand seven hundred and seventy-two billions, an enormous mass, whose weight would amount to seventy-five hundred tons. Fortunately, these ideal conditions never exist, each germ requires food, and as the supply is always limited (not to speak of other conditions), immense numbers die of starvation—*Medical Dial.*

"Uncle John," said little Emily, "do you know that a baby that was fed on elephant's milk gained twenty pounds in a week?" "Nonsense!" exclaimed Uncle John, and then asked: "Whose baby was it?" "It was the elephant's bady," replied little Emily.

Recovery from Leprosy.

Mr. Jonathan Hutchinson, in the Indian Record of October 31, 1900, reports two cases of anesthetic leprosy which recovered after an extended treatment which consisted only in small doses of arsenic, a liberal diet, and abstinence from fish. Of late years, says Mr. Hutchinson, it has been shown that in not a few cases of leprosy recovery occurs. They have been chiefly observed in countries where the disease is not endemic, and in patients who migrated from the place where the disease was acquired, and lived under wholly altered conditions. In former times the leper had no chance, but now the disease is looked upon much more hopefully. The essentials to recovery are a liberal diet, external comforts, and entire abstinence from uncooked fish. In olden times the leper was an outcast, condemned to poverty and the poorest food. If he got access to a leper asylum, he would very probably be fed on fish. To a considerable extent this is changed. The leper establishments now allow a more judicious and liberal diet, and from one, that of Robben Island, where recoveries have been chiefly claimed, fish is wholly excluded. The best examples of cure have come, however, not from asylums, but from private practice and from cases in which, as in the United States, the patient has migrated to a non-leprosy district and has been able to secure plenty of non-leprosic and antibacillary food.—*Medical Age.*

The new regulations whereby women are admitted as ordinary student to the universities and colleges in Austria, according to the British Medical Journal, have already been the cause of some disturbance of academic calm. Professor Hermann Nothnagel, who holds the chair of special pathology, therapeutics and clinical medicine, in the University of Vienna, when he found a row of young ladies on the front bench of his class-room, refused to proceed with his lecture on the ground that it had not been prepared for students of the feminine persuasion. The girl undergraduates were then requested to depart, which they declined to do, and as the chronicler relates, they had to be led out of the University, but whether from its rooms merely or from its precincts he does not state. At Graz, too, the lady medical students were ungallantly received by their fraternal colleagues on making their first appearance in the medical class-room. On this occasion the girl undergraduates took up a less firm attitude than their Vienna sisters, and left the room with sobs.—*Annals of Gynecology and Pediatry.*

IODOZEN—MERRELL.

Chemical Formula $C_6H_2I_2 \begin{cases} COOCH_3 \\ CNa \end{cases}$

IODOZEN—an iodine derivative of methyl salicylate (true oil of wintergreen) it has an agreeable odor, is non-irritant, and combines the antiseptic, discutient, alterative and absorbent qualities of iodoform without any of its characteristic disadvantages.

The iodine being liberated very slowly in the presence of heat and moisture, no toxic effects may be apprehended.

The density of Iodozen is less than that of iodoform, hence a given quantity will cover a larger surface; it is, therefore, more economical.

Iodozen is absorbed slowly and adheres to sores and mucous membranes for a considerable period, and in the meantime exerts a protective as well as antiseptic effect.

These qualities place Iodozen in the front rank of antiseptic applications in the treatment of aural, venereal, and cutaneous diseases, in minor surgery and catarrhal affections of the uterus and nasal mucous membranes.

Iodozen, when mixed with powdered boracic acid in the proportion of 5 to 10 per cent. and used by insufflation, is of value in post-nasal catarrh and ulcerated conditions of the throat, but in specific lesions it is advisable to apply Iodozen pure, in order to produce the necessary antiseptic impression.

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Phagedena
Prurigo
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Suppurating buboes
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Bacteriologic Examination of Air and Water in the Center of the Atlantic Ocean.

Minervini examined the number of bacteria in the air and in the water of the middle of the Atlantic Ocean. As expected, the air was found much purer than that of the continent, the number of bacteria being relatively smaller. Not rarely the air was free from bacteria. The bacterial flora was found to contain fewer varieties than are usually present in the air inland; in none of the experiments were any of the usual pathologic forms discovered; and, commonly, fungi are more numerous than bacteria. The number of bacteria in the air of the ocean varies with the atmospheric conditions and it becomes smaller after rains. The rain-water is also relatively poorer in bacteria, the fungi predominating. Out in the ocean, the sea-water contains less bacteria than near the shore, but the condition is not materially different from that usually observed a few miles from land. In sea-water bacteria are more numerous than fungi; relatively few species are found, the number of vibrios being greater than that of other forms.—*Jour. A. M. A.*

A very interesting discussion about the origin of gout took place at the International Medical Congress, in Paris, in which the most prominent authorities of Germany, France and England participated. According to a paper read by Prof. Epstein (Goettingen), the disease is caused by an intrusion of uric acid in the tissues. Epstein makes a distinction between two forms of gout. In the first, the disease only effects a few parts of the body, and the individual may attain high age. In the second, more seldom found, the uric acid reached right from the beginning all parts of the body, and is most likely caused by a serious disease of the kidneys. Prof. Le Gendre (Paris) after comparing the different theories about the origin of gout, expressed the opinion that the disease is caused by faulty metabolism. Prof. Duckworth (London) calls the gout a disturbed nutrition causing an imperfect metabolism in certain organs, most likely in the liver and also perhaps in the kidneys. The true indications of gout manifest themselves mainly in those joints and tissues which, in consequence of malnutrition, or of injuries, lost their force of resistance. The salt crystals deposited in the tissues can be dissolved and eliminated, but are liable to remain permanent in badly nourished parts of the body, causing the most vehement pains. While the authorities come to the conclusion, that the ultimate cause of the origin of uric acid has not as yet been sufficiently explored, they unanimously agreed that of all the uric acid eliminators, Kutnow's Improved Effervescent Powder, composed of the most valuable and curative elements of the most celebrated European Mineral Spring Waters, occupies the first place and is unequaled.

Abdominal Drainage in Diffuse Peritonitis.

Bode (Centralblatt fur Chirurgie, January, 1900), presents a new and certainly a thorough method for the treatment of general peritonitis. A long median incision is made, admitting of free access to the abdominal cavity. Through this the intestines are delivered and wrapped in cloths wrang out of hot salt solution. The abdominal cavity is thoroughly washed and flushed with a similar solution, then the intestines, after which they are returned. Counter openings are made on each side in the lumbar region and a long perforated drainage tube passed through, going above the colon. Should there be localized areas of suppuration shorter tubes may be passed down to these and brought out of the same openings. Rubber drains are placed in the abdominal incision and the wound closed. In his after treatment the author irrigates the abdominal cavity daily with warm salt solution through these tubes. After the symptoms subside the tubes are gradually withdrawn. He reports success in a number of very severe cases.—*Chicago Clinic.*

A Chance for Supernumerary Doctors.

The Indian Medical Record for August 15th cites the following advertisement from the "Calcutta daily papers";

Wanted.—A European, Eurasian or an Armenian smart doctor, thoroughly honest, on salary rupees one hundred per month, with free board and lodging, for the purpose of private treatment and to keep private daily accounts, to write a few letters when necessary, and pay servants's wages monthly; nothing more work to do. Apply to Nawab Syed Delawar Reza, Mithapur, Bankipore, Maijee's Kothi.

"N. B.—Those not of noble birth need not apply."

[The Indian Medical Redord waxes indignant at the incongruity of the proposition. But after all, the poor man wants a medical steward; but a steward, in Greek, is *Tauias*, which in Latin may be rendered *dispensator*; *Anglice*, dispenser, or one who dispenses, and therefore belongs to a dispensary, or in common parlance, a "doctor's shop"; *ergo* a doctor.—and there you are!]—*N. Y. Med. Jour.*

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Have used RESINOL in many cases and am exceedingly pleased with its action.—G. E. WILDER, M. D., Sandusky, Ohio.

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The Professor's Escaped Bacteria.

He was apparently an old man, wore large spectacles and carried a small satchel. Across the satched was labeled "Prof. Redd, Chicago." He entered the waiting-room of a suburban station and deposited the satchel carelessly near the ice cooler. Suddenly those near saw the satchel fall and heard the sharp tinkle of breaking glass. The old man picked up the glass and muttered exclamations of distress.

"To think I brought them all the way from Brazil," he said.

"What were they?" inquired some one in the sympathatic crowd.

"Germs!"

"What?"

"Bacteria of a strange Brazilian fever."

"Quick, man, crush them with your foot!"

"I can't, sir, They are now floating around in the air."

There was a moment of horror. Then there was a rush and a little later the old man was the only occupant of the waiting-room. A window was raised from the outside.

"Just let them out easy, Pete," cautioned a voice.

And the bogus professor obeyed. Satchels, grips and cases went through the window. After he had finished collecting, the professor followed the booty. His false beard fell back in the room, but he did not attempt to reclaim it. The arrival of their train prompted those outside to venture in for their baggage. It had vanished and the black beard told the tale.—*Medical News.*

A New Treatment for Colds.

"Colds" have ever been with us in their proper season, and very often at other times. Perennially, there appears a crop of new remedies or treatments for "cold." The fact of this repeated cropping up of the best cures is conclusive evidence of the inefficiency of those that came before. Recognizing this fact, it is with some misgivings that we venture to raise false hopes of having really found a reliable cure for colds, but we will give one that has stood the test for eleven years, at least so says its author.

The remedy consists in giving 30 grains of potassium bicarbonate every four hours in a glass of milk or cold water. The patient should rest for one or two days, and subsist on a concentrated liquid diet, all solid food being rigorously interdicted. This is the suggestion made by Dr. Stephen Harnsberger, of Catlett, Va., in the Philadelphia Medical Journal of Nov. 10, 1900. —*Med. Council.*

Histology of Uterine Adenomyomata.

Hirst (Am. Jour. of the Medical Sciences) in a valuable article, discussing the adenomas of the uterus, gives the following conclusions: 1. In the uterus of an adult were found an embryonal, epithelial inclusions from the mucous membrane of the uterine body (Muller's duct), situated in the peripheral, subserous layer of the myometrium. 2. Isolated glands and cysts, included in the uterine wall, and originating from the mucous membrane, are provided with a cystogenic tissue-sheath, but not invariably. 3. The cystogenic tissue is found accompanying remains of the Wolffian body only when adenomatous proliferation is present in them, and this applies both when it occurs at the normal site of the paroophoron, and in transposed portions of it. 4. Adenomas, with glands and cysts in scattered arrangement, are to be considered as from the mucous membrane as soon as they are provided with cystogenic tissue-ducts in the uterine and tubal wall, which have heretofore been characterized as aberrant canals from the Wolffian body, have not been proved as such, and are of uncharacteristic anatomic structure. For this diagnosis we must have specific figures of the paroophoron or connecton with Gærtner's duct. 6. We have shown that the formation of subserous adenomyomas from these incorporated glands of the uterine mucous membrane is possible.—*N. Y. Lancet.*

Newspaper Science.

If Professors Loeb and Lingle, of the University of Chicago, have "discovered" anything new in the properties of common salt, as connected with the heart-beat, it would be in better form to promulgate it through the scientific journals. Usually scientists do not publish their "discoveries" under bold headlines in the daily papers, alongside the latest sensation in Sangamon street. It would be well if the doughty professors would recall to mind that old story, familiar to their childhood, about the "twenty thousand men, who marched up the hill and then—marched down again." —*Chicago Clinic*

Notice-- SANDER & SON'S EUCALYPTOL is invaluable in inflammation of the mucous membranes, and in all septic and infectious diseases. Apply to Dr. SANDER, Belle Plaine Iowa, for sample and literature of Sander's Eucalyptol. Meyer Bro.'s Drug Company, St. Louis, Mo., Sole Agents.

A Mixed Infection in Training Schools.

Chicago proposes a mixed infection in the line of irregular practice. This time it is a training school for nurses, wherein the rag-tag and bob-tail of the noble healing art can unite in instructing nurses regarding the peculiar intricacies of caring for the sick after the copyrighted methods of these very varied schools. It is to be a mixed infection, to say the least, for we read that the osteopaths, the allopaths (who are they by the way?); the homeopaths, and the eclectics, like the lion and the lamb, are to feed out of the same box, and chew cuds 'neath the shades of the stunted oaks of Chicago. Behold, too, Bishop Fellows, Rev. Hiram W. Thomas and Rev. Frank DeWitt Talmage are to lend their prayers and support to this mixed infection.

And this school exists for what purpose? Listen. "It is to give woman training in all duties of skilled nurses without requiring two years of bondage in hospitals and training schools." In other words, this is a short cut to nursing, and is on the same footing as irregular medical practice, another diploma mill.

Once more esteemed clergymen, who ought to know better, are made the cat's-paw to irregular practice. When will clergymen ever learn to use "applied good sense" and differentiate the true from the false. Any fool, as he runs, can read that this school is out for the money there is in it, and graduates from a ten-bed hospital will be about as well qualified to practice nursing as the bugler of a campaign drum corps is to play solo parts in Thomas' orchestra. Verily, this is the day of pseudo-science, to which is added the mixed infection of pseudo-religion.—*Medical Fortnightly.*

Experiments were recently carried out in France for the purpose of ascertaining the quantity of fuel consumed by automobiles. The course extended from Suresnes to Meulan and back, a total distance ot nearly 44 miles. Ninety-six vehicles competed in the trial. The premier position was secured by a moto-cycle, which piloted a quadricycle of 5 horse power, carrying two persons, and which only consumed about 4½ pints of fuel. The Count de Chasseloup-Laubat, who traveled in a 24 horse power machine, covered the distance in 1 hour 43 minutes with a consumption of about 1 gallon. All the vehicles succeeded in covering the journey, and the results of the test prove that the cost of running automobiles is considerable less than is generally supposed.—*Scientific American.*

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Veratrum Viride in Eclampsia.

Howle, (Lancet, May 27, 1899) reports the recovery from eclampsia which is most interesting from the therapeutic standpoint because of the fact that the patient got well notwithstanding the presence of symptoms which are usually regarded as fatal—high temperature, stupor, pulmonary edema, cyanosis, and weak irregular pulse of 120. Inhalation of chloroform failed to arrest the convulsions. Veratrum viride, 10 minims, given hypodermically seemed to improve the pulse. The os was manually dilated and the child delivered by version. The convulsions ceased at once and a slow recovery was instituted. Following delivery the urine contained twelve parts of dried albumen per thousand, but the renal complications rapidly passed away. The treatment following delivery consisted of purgatives and salines, absolute milk diet and 10 minims of tincture veratrum viride with 5 grs. of chloral hydrate every hour. The success secured in this case causes Howle strongly to extol the virtues of veratrum viride in puerperal eclampsia.—*Bulletin Cleveland Gen. Hos.*

Raw Meat and Alcohol in Tuberculosis

Furster, at the Thirteenth International Medical Congress, Paris, (Wiener Klin, Woch., Sept. 20, 1900), indicated the following technique for the employment of this latest plan of treatment, which has been favorably reported upon even by the lay press: Raw beef or mutton is scraped with a large blade, and divided into small masses the size of a hazelnut or strawberry, of which the patient takes from 100 to 300 grammes a day in apricot jelly, powdered sugar, etc., without prejudice to his usual diet. Alcoholic stimulants exhibited in hourly doses of one tablespoonful constitute a necessary adjuvant of the method. Favorable results obtained by this plan of treatment, as confirmed by Richet and Chantemesse's experiments upon animals, are not—as Bouchard would have it—traceable to mere overfeeding. The elder Furster claims excellent practical results from thirty-five year's experience with this method.—*Medical Age.*

Medical Inspectors for Schools.

Denver is seriously considering the advisability of appointing medical inspectors for its public schools, following the example of Chicago, where fifty inspectors are employed for eight months in the year at a salary of $50 a month each. The last official report showed that among 2,521 ailing children examined in Chicago, 184 cases of contagious diseases were found. In twenty-five school days 9,770 children were found ailing, 694 from scarlet fever, diphtheria, etc., in an incipient or well-developed form. In New York there is daily inspection of the schools, each inspector covering two schools for $30 a month, ten months in the year. In Philadelphia 300 physicians are selected without pay, and there is daily examination. The system has just been rejected by the board of school directors of New Orleans.—*N. Y. Med. Jour.*

An osteopath, Swan L. Thompson, has been fined $50 in the police court of Milwaukee, for illegally using the title of "Dr." He has also been ordered to pay the costs of the prosecution. Mr. Thompson was also accused of illegally practicing medicine without obtaining a license, but this charge was not pressed. The osteopaths of the State have appealed the case. They claim that they have as much right to affix the letters D. O. to their names as other persons have to use D. D. or L.L. D. The State Medical Board complained that pamphlets were illegally sent out by Mr. Thompson, explaining osteopathy as a system of healing without drugs by using the bones as levers and so exciting the nerves as to produce contraction of the muscles and cause a venous flow of blood to the heart. They believe that disease is the effect of a local or general disturbance of circulation and that the natural flow of blood is healthy. Counsel for Mr. Thompson contend that if osteopathic treatment is against the law, it is illegal for trained nurses and Turkish bath attendants to treat sick persons. The osteopaths hope to secure a law which will place an osteopath on its State Board of Examiners and regulate their schools like other medical schools.—*Western Med. Rev.*

A Suit against Physicians.

A malpractice suit for $60,000 damages, brought against Drs. Manges and Rosenberg of this city, has resulted in a disagreement of the jury, the division being nine to three in favor of the physicians. The suit arose from a curettage, in 1897, to check severe hemorrhage in a woman with large fibroid tumors of the uterus. It was claimed that the operation was performed without consent, that it was unskilfully done, that too much chloroform was administered, that there was neglect in the after treatment, and that the woman had no fibroids. The basis for the claim that there were no fibroids was the naive statement that there was no external protuberance of any kind. —*Medical Record.*

Arab Immunity.

The Arabs are said to exhibit almost complete immunity to disease of the serous membranes. Abdominal surgery therefore has a special benignity with them, and joint diseases are exceptional. Rheumatism is almost unknown. The bacillus of Koch and that of pneumonia are, however, very active with them, and it is suggested that it may be this marked susceptibility to tuberculosis racially which may cause immunity to serous trouble.—*Medical Age.*

Legislation Against Alcoholism in France.

A resolution has been adopted unanimously by the French chamber of deputies calling upon the government to prohibit the manufacture and sale of all alcoholic liquors pronounced "dangerous" by the Academy of Medicine. The resolution is said to be aimed especially at absinthe, the consumption of which has nearly doubled in France since 1894. and now stands at 10,000,000 litres annually.—*Medical Record.*

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then let us send you a sample and convince you that ACNEINE is that remedy.

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OMAHA, NEBRASKA.

According to the Alienist and Neurologist, the following story is told by a Scotch physician, now resident in New York, about a friend of his who was for a considerable time the medical superintendent of a lunatic asylum near Glasgow: One day in making his rounds he had occasion to visit the patients in the kitchen, who were preparing the dinner. There were seven of them, all big, sturdy fellows, believed to be harmless. The keeper looked in upon them only now and then, feeling that his constant presence was unnecessary. The doctor unlocked the iron-barred gate of the kitchen and went in. There were five large boilers containing scalding water, ready for cooking for the day's dinner for the patients. One of the lunatics pointed to the boilers and, laying his hand upon the doctor's shoulder, said, "Doctor, you'll make a fine pot of broth," and the words were no sooner uttered than the other six madmen shouted in delight, "Just the thing," seized the doctor, and were in the very act of putting him into one of the boilers, when the doctor had the presence of mind to say, but a second too soon: "Capital broth, but it would taste better if I had my clothes off." The madmen, with a yell of joy, said "Yes," and the doctor asked them to wait a moment while he went and undressed; but as soon as he got out of the kitchen he turned the key in the door and ordered the keeper to see to the lunatics. The doctor's stratagem saved him from a terrible death, but as a result of the experience he died shortly after raving mad.—*Medical Times.*

Counter Prescribing and Poisonous Mixtures.

Oscar Epstein, druggist, of One Hundred and Sixty-third Street and Forest Avenue, sold some cough medicine which, it is alleged, caused the death of the infant child of a manufacturer of Trinity Avenue. The Coroner's physician for that district said that that the druggist told him that he had been employed in a drug store in Staten Island, where the proprietor manufactured a cough mixture such as was given to the child. This cough mixture, he told Dr. Reigelmann, contained 80 ounces of laudanum in every 420 ounces. Which is the more guilty person, the druggist who prepared the mixture or the father who bought it, it, is difficult to determine.—*Medical News.*

Disinfection of the Urine from Cases of Typhoid Fever.

The statement that the dissemination of typhoid fever is due principally to carelessness in the disposal of those suffering from that disease is so generally recognized as not to require discussion. It is, however, not sufficiently appreciated that typhoid-bacilli are eliminated, sometimes in larger numbers, also with the urine, the disinfection of which is, therefore, scarcely less important than that of the stools. No substance safely capable of destroying the typhoid-bacilli in the human body is known, so that measures of disinfection should be applied to both the stools and the urine and to vomited matters in case of vomiting. Some interesting observations made by Gwyn and reported at a recent meeting of the Philadelphia County Medical Society, go to show that mercuric chlorid is the best and most available agent for this purpose. Whatever the disinfectant used, admixture should be thorough and exposure prolonged.—*Pa. Med. Jour.*

Reduction of Strangulated Hernia by Compresses Soaked in Ether.

At a recent meeting of the Paris Academie de Medicine, M. Flessinger made a communication on the prolonged application of compresses of ether in strangulated hernia. He found that the majority of cases of strangulated hernia, formerly calling for operative interference, yield to this simple means. In January, 1900, M. Fiessinger published the history of a case of crural hernia, strangulated for forty-four hours, and reduced by compresses soaked in ether applied during three-quarters of an hour. The hernia disappeared of itself, after three attempts at taxis had failed, although the patient was much exhausted by fecal vomiting during the previous twenty-four hours. He has since received several letters from other practitioners relating to the history of similar cases with repeated success. After a lapse of time varying from a quarter of an hour to two hours the hernia—crural, inguinal, or umbilical—disappeared of itself, or after a slight and insignificant pressure by the surgeon. The ether is allowed to fall, drop by drop, on a compress such as a handkerchief or piece of gauze, which is thus always damp. The quantity of ether used in one case amounted to 250 grammes. The method was almost marvelous in its results, most painless in application, and of great service to the country doctor. During the first thirty-six hours there was every chance of success; after this period it would be better not to attempt this method, owing to the risk of returning a gangrenous loop into the abdomen. He thought that the ether acted reflexly, causing a great vasoconstriction. The loop of intestine was no longer congested, and reentered the abdomen as easily as it slipped out. Ether is more practical than ice, being more easily obtained and possessing greater power.—*Medical Age.*

The Sore Throat of Scarlet Fever.

The precise part played by angina in the clinical history of scarlet fever is a matter of much interest. What seems a distinct addition to our knowlege of it was brought out at a recent meeting of the Medical Society of the Hospitals of Paris, by Variot and Delair, whose researches on the polymorphanism of scarlatinal angina were summarized (Progres Medical, November 3d). They had observed 525 cases. In 150 there had been no exudate, although among those cases the pharyngitis had sometimes been very persistent and painful. They had never seen the military vesicles mentioned by Lasegue. In 375 cases there had been exudates. In 102 of cases there had been a suspicion of diphtheria, a suspicion that had been confirmed in 30 instances. In 31 case there had been pseudo-diphtheria with streptococci, and in these cases the clinical examination had never sufficed for the diagnosis. Contrary to the dictum of Wurtz and Bourges, that diphtheritic angina in scarlet fever was always of late development, was their experience. In doubtful cases, if a baceteriological examination was not to be had, one should not hesitate to use the anti-diphtheritic serum. Variot had observed laryngeal complications only four times. In 423 cases of scarlatina pursuing a normal course, the influence of the angina on the temperature had been more intense than that of the evolution of the rash. In two-thirds of these cases of angina the rise of temperature, the sore throat, and the rash had progressed *pari passu*; in the other third they had not done so.—*N. Y. Med. Journal.*

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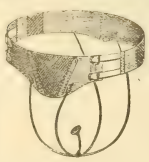

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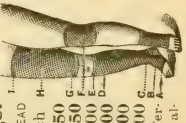

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To Teach Military Surgery.

Dr. Nicholas Senn has been engaged by the University of Chicago to give a series of lectures at the university upon "Military Surgery." These lectures will begin next fall, when the first year students at Rush Medical College will study at the university instead of at the West Side College. This move has been decided upon since the Rush Medical College became affiliated with the university. A number of medical students are now taking studies at the university, and next fall there will be several hundred there.—*Medical News.*

Nothing so much vexes a physician as to be sent for in great haste, and to find, after his arrival, that nothing, or next to nothing, is the matter. An eminent English surgeon had been sent for by a gentleman who had just received a slight wound, gave his servant orders to go home with all haste imaginable and fetch a certain plaster. The patient, turning a little pale, said, "Heavens! sir, I hope there is no danger?" "Indeed, there is," answered the surgeon; "for if that fellow doesn't run like a race-horse, the wound will be healed before he can possibly get back."—*Family Doctor.*

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No Free Treatment for Inebriates in Minnesota.

The legislature of Minnesota last year passed what was called the "jag-cure law," which provided that indigent inebriates, upon proper petition, might be treated at a private institution, and the expense would be borne by the county. The consent of the inebriate must have previously been obtained. The supreme court of the State has, however, decided that the law is unconstitutional, because it applies only to counties of over fifty thousand population, and is limited in its benefits to a certain number in each county—one per year to each ten thousand of population.—*Medical Record.*

Officers of the United States revenue cutter Rush report that the Indians of the Aleutian Islands, as well as those of the Alaskan peninsula and on the mainland, are dying at an alarming rate. The Rush was engaged during the summer in Indian census enumeration. Attu Island, in past years densely populated with Alaskan natives, contains only seventy-three, and Atka, the largest island of the group, has an Indian population of but one hundred and seventy-five. That island half a century ago supported a great tribe. Last season measles and pneumonia carried off the Indians by the score, and should these diseases become epidemic again next year the archipelago will become almost depopulated.—*Medical Age.*

The Charlotte Medical Journal.

VOL. XVIII. CHARLOTTE, N. C., FEBRUARY, 1901. No. 2.

Valvular Lesions of the Heart.*

By L. B. McBrayer, M.D., Asheville, N. C.
Member American Medical Association; Mississippi Valley Medical Association; N. C. State Medical Society, etc., etc.

We have about forty-five physicians in Asheville, all of whom claim to be specialists on diseases of the chest, save four, who are specialists on the eye and one of these also includes diseases of the chest; and yet I believe this is the first paper ever presented to this Society on a disease of the heart. For the benefit of these chest specialists who, in their mad chase after the tubercle bacillus, and, in their laudable but vain endeavor to discover something that will exterminate him, seem to have placed the heart below the diaphragm, I want to say that she is still doing business at the same old stand, in the middle mediastium between the lungs.

The ætiology of valvular lesions is endocarditis—of this we have malignant, acute and chronic.

Malignant endocarditis occurring in persons in perfect health has probably never been seen, but follows septic processes—pneumonia, etc. I have never seen a case of this. Loomis says it is always fatal, usually in from 24 hours to two or three days. He also says that no plan of treatment has seemed to influence this affection. Stimulants and opium are the only drugs recommended. Simple acute endocarditis is associated with a variety of infective processes, though it is met with most frequently in the course of acute articular rheumatism, usually occurring about the second week of the disease. Chorea in one who has a distinct rheumatic history is often associated with endocarditis. It sometimes occurs in the course of acute tonsilitis. The exanthemata, especially scarlet fever, often gives rise to it.

The endocarditis of the right heart is usually the seat of the disease during fœtal life, that of the left after birth.

Endocarditis, contrary to the true meaning of the word, rarely, if ever, attacks the whole endocardium of the heart, but is usually limited to the valves and to the arricular surfaces of mitral and ventricular surfaces of semi-lunar.

The advent of acute endocarditis is so insidious and the symptoms often so slight that it is frequently overlooked. So far as I have been able to ascertain death never occurs from this trouble, and so were it not for the tendency of this disease to produce a chronic valvular disease, it would hardly be worth mentioning.

This trouble usually subsides or rather becomes chronic and the heart regains its equilibrium in from 2 weeks to 2 months. If the heart should become irregular and the patient distressed morphia in doses sufficent to produce comfort should be given. Prophylaxis in this, as in all other diseases, is the great desideratum, but when we look for drugs to accomplish the purpose, we are wholly at sea. Absolute rest in the recumbent posture, for from one to three weeks after symptoms have subsided and during the course of the disease which produces the endocarditis, will probably accomplish more in the way of prophylaxis of chronic valvular disease than any amount of medication that we can give. Chronic or fibroid endocarditis is the foundation of most chronic valvular diseases. In the majority of instances this affection is secondary to acute rheumatic endocarditis. However, a goodly percent of the cases have no rheumatic history and is then ascribed to alcohol, nicotine, gout, syphilis, prolonged and severe muscular exertion, etc. Stengill reports 86 of 163 cases due to rheumatism; of the remaining 77 some of them could be ascribed to the other affections mentioned, while quite a number could not be assigned to any definite cause.

A later and more satisfactory classification of endocarditis is by Litten before the German Congress for Internal Medicines, and referred to in the editorial columns of the Journal of the A. M. A., in the issue of December 15th, as representing fully our knowledge of this interesting affection. And the editor states further that this classification appears to meet the approval of the Congress.

Litten defines it as follows, on the basis of its etiology: 1. Benign Endocarditis, which includes that produced in the fol-

*Read before the Buncombe County Medical Society.

lowing infective processes—rheumatism, cholera, gonorrhea, scarlet fever, measles, smallpox, diphtheria, typhoid, pneumonia, tuberculosis, influenza and that caused by traumatism. 2. Malignant Endocarditis. This is also divided into, first, non-suppurative, which includes rheumatic, choreaic and gonorrhœal; and second, suppurative or septico-pyemic, primary or secondary in any of the above forms. In this classification you cannot draw the lines so closely between benign and malignant as in the old classification.

The cases due to other than rheumatic causes were more often aortic than otherwise. Valvular disease occurs at every age of life from fœtal to old age, but is most common in early adult life, between 18 and 40, because most of the diseases that produce endocarditis occur before the age of 40; in early life mitral diseases are common; in later life aortic; females are more often affected than males, but the prognosis is better because of the quiet and retired life which most of them live.

Of 80 cases of mitral stenosis reported by Duckworth, 63 were in women.

It would be useless of me to go into the differential diagnosis of the different forms of valvular lesion. Aortic regurgitation and stenosis, mitral regurgitation and stenosis and the lesions of the right heart which are rare and usually secondary to mitral disease of the left side, before this scientific body of men. I once heard the statement made, that given a valvular lesion, you might be positive that it was the left side and the mitral valve. This is not correct as regards the mitral valve, as some 31 or 40 per cent. of the valvular lesions are at the orifice of the aorta.

No matter what the valvular lesion, the *immediate* prognosis is *good* so long as full compensation is maintained and the symptoms are nil, the diagnosis being made by a physical examination for life insurance or some other purpose, the patient probably never having had any trouble referred to his heart. There is no need of medication in this stage other than that necessary to keep the patient's general health at par. He should take plenty of exercise and might be allowed to follow his usual occupation, provided this does not incur prolonged or severe muscular or mental strain, alcohol and tobacco interdicted and he should not gormandize. In a word, in eating and drinking and exercise he should obey the physiological laws of health. Sexual indulgence should never be excessive. As it is always better to have the cooperation of an intelligent patient, he should, as a rule, be told of the condition, but in this matter the physician must be guided by circumstaces, and there are cases where reticence is the wiser policy.

The first indication of commencing failure of compensation in valvular disease is sudden attacks of dyspnœa after active physical exertion, or on awakening from sleep at night. We have also a rapid pulse, continuing or not after the dyspnœa has subsided, depending on the degree of dilatation of the heart. Now our patient needs our best judgment and closest attention. It will be necessary to administer morphia hypodermically as often as required to prevent the præcordial distress and at the same time give digitalis per orem. This slows the heart and increases the power of each systole, and also serves as a diuretic; sparteine probably comes in for second place, then strychnin, stophanthus, convalaria, etc.

A prscription which I have learned to rely upon is:

℞ Digitalis, gr. 1-50
Strychnine, gr. 1-20
Trinitrin, gr. 1-100
Caffeine cit. or saly. gr. iii
M. Ft. caps No. 1.
S.—Give one every 3 or 4 hours.

This with rest in the recumbent posture will usually suffice to restore equilibrim, in a longer or shorter time, may be a few days, may be in a few months. It is absolutely necessary now that patient should be apprised of his condition and warned not to indulge in any severe muscular exertion or severe mental strain or emotion such as anger or fear, and for the violation of your instructions he will probably have to pay the death penalty. Of course the secretions of the body must have attention and an occasional dose of calomel will do good. If there is anæmia we must give iron, arsenic, etc., in quantities sufficient. And right here let me say that if you want a mild and pleasant tonic for a patient that does not need much medication, you might use Gude's or P. D. & Cos. Pepto-mangan. But if your patient really needs iron, in such cases as severe chlorosis or valvular heart lesions, you will get no results whatever from these preparations, and will have to fall back on the old reliable tr. ferri chlo.

The much believed theory that digitalis has a cumulative and therefore poisonous effect is now denied by such men as Loomis, and he reports a case where a man took from 20 to 40 gtts. of the preparation almost daily for ten years with no unpleasant effects, but per contra if he omitted it for two or three consecutive days he would suffer with palpitation and cardiac

distress, which would soon disappear when he returned to his digitalis.

The period of established failure of compensation, which means a dilated heart, is marked by a rapid, feeble, irregular pulse, scanty urine, constant dyspnœa and general anasarca, and this is an indication that the end is in sight. The same treatment recommended for beginning failure of compensation should now be pushed. The patient should be kept comfortable with hypodermics of morphia, whether much or little is required.

Case 1—Was called to see Mrs. F., female, age 54, at 2 a. m., on the morning of July 5, 1897, and found her suffering from severe dyspnœa, pulse rapid; gave hypodemic of morphia gr. 1-4, strychnin gr. 1-20, which relieved her to a great extent; examined heart, could readily detect loud heart murmur, but on account of the great rapidity of the heart could not satisfy myself as to lesion; called next day and satisfied myself that patient had acortic regurgitation; put her on digitalis, strychnin, glonoin and caffeine. She was able to sit up and move around in a few days, but could not use any physical exertion whatever; pulse continued from 110 to 130. She gradually improved until about the first of December, when she had another severe attack of dyspnœa, and was unable to sit up for about four months; treatment continued, with proper attention to secretions, diet, etc., and finally she got able to be around, walk up steps and considerable elevation in the street, though she lost considerable flesh during her four months confinement. Her pulse got down to 90 to 100. Finally she was taken with a congestion of the lung and on the third day, December 21, 1899, the heart dilated and refused to pulsate and she was dead. This patient lived two and a-half years after first symptoms of failure of compensation. This murmur could be heard all over the chest in front and also behind except at lower angle of right scapulæ. This patient gave history of severe rheumatism when a girl.

Case II.—Mrs. G. age, 21—Was called to attend her in confinement on the evening of September 31, 1898, os dilated slowly, so I slept a good deal during the night. Shortly before daylight the pains seemed to be punishing her a great deal and I examined her pulse and found them 110; examined heart and found the loudest regurgitation murmur I ever heard This was also aortic. It could be heard all over the chest, both before and behind; point of loudest intensity of course at right side of sternum 2 d. intercostal space. I administered chloroform, had it continued by one of the lady attendants under very close supervision, applied the forceps and delivered without any untoward effects, save a rather profuse post-partum hemorrhage; pulse remained 110 for several days and then quieted down under digitalis, strychnin, and caffeine; patient had pretty fair health, suffering with slight dyspnœa on physical exertion and I did not see her professionally until July 5, 1900, when I was again called to attend her in confinement. Os dilated easily and when expulsive pains began she seemed to suffer some with dyspnœa and I gave morphia gr. 1-4 and strychnin gr. 1-20; expulsive pains grew more and more severe and I went to get my chloroform bottle and found I had left it in my office, where I had just used it. The last expulsive pains were very severe, and when labor was completed my patient was almost in a state of syncope, extreme pallor, præcordial distress, etc. I gave her stimulants, removed pillows, raised foot of bed, gave another hypodermic of strychin gr. 1-20, morphia gr. 1-8.

Hemorrhage rather severe again, insomuch that I gave 60 min. flex. ergot hypodermically, remained with her for two hours, when she was sleeping quietly, though still quite pale, uterus contracted firmly; put her on digitalis strychnin, glonoin and caffeine every four hours, and left instructions that her head be not raised for any thing. Patient seemed exhausted, did not sleep well without morphia, but did reasonably well until the sixth day after her confinement, when cardiac distress grew gradually worse and she died on the tenth day from dilatation of the heart. This patient gave history of severe attack of rheumatism ten years previous to first confinement. Allow me to say that vulvular lesion of the heart where there is perfect compensation is no contraindication to the use of a general anaæsthetic, provided the anæstheria be not prolonged; on the other hand in confinement it is the only proper treatment, regardless of dilatation or lack of compensation that may exist. It is barely possible if I had given chloroform to the surgical degree and delivered with forceps, before expulsive pains began, my patient would have been alive to-day.

Case III.—Mrs. P., female, aged 50—Numerous attacks of acute articular rheumatism, last one in winter of 1897–8, confined to bed for some three months on account of inflammatory condition of different joints, heart symptoms were very much aggravated, had double-lesion, aortic regurgi-

tation and mitral stenosis. In the spring, after she was able to be around, I received a hurry telephone call from one of her sons stating that his mother had been standing by the mantel and had fallen. I answered the summons as quickly as possible, expecting to find her dead, but found on reaching the house that some of the family had been standing near and had caught her and saved her the fall. I am of the opinion that had she fallen to the floor, that the additonal shock would have caused a cessation of the heart's action, as it was, I found her on the bed, her head elevated by a number of pillows, suffering from severe cardiac distress and dyspnœa; heart was floundering around at the rate of 200 per minute, as well I could ascertain by the stethoscope. I gave her hypodermic of morphia gr. 1-4, atopia gr. 1-150, strychnin gr. 1-16, glonoin gr. 1-100, and followed by rest in recumbent posture; patient recovered sufficiently to be able to sit up in a week and at this time does her own house work and goes where she pleases in comparative comfort, except she cannot ascend a hill even slowly without suffering some from shortness of breath. On October 25, 1899, she presented herself at my office, pulse was normal in frequency and rythm and at the request of her son I administered chloroform, for the purpose of having fourteen teeth extracted; no untoward symptoms, in fact, I never had less trouble with a patient during anæsthesia in my life.

32 Patton Av.

DISCUSSION.

Dr. E. R. Morris—The doctor stated in his paper that the causes of valvular lesions of the heart were too numerous to mention, and I notice that he has limited himself to diseases of the mitral valves and semilunar valves. Without going into the etiology, I wish to say a few words in regard to treatment. In the first place, I believe we should first look to the cause of the valvular lesion rather than to the lesion itself, because very often the cause must be treated instead of the condition. I notice that the doctor did not mention the alkaline treatment, that is, the administration of carbonate of ammonia or potass, acetas, &c. I think if you have a weak, feeble heart you might give digitalis and strychnine, caffeine, or any other remedy the doctor mentione l, with good results; especially if you have dilated heart you will, of course, give these drugs with some cathartic as pulv. jalap. comp. or calomel to get rid o any fluid you may have, and the latter to also act as diuretic in addition; especially where you have the capillary system relaxed you will find better results by giving nitroglycerine and strophanthus. If we diagnose our case clearly and get all the conditions present and treat the cause whether it be the kidney vesels or any other secondary condition that may exist, giving proper drugs that at least theoretically will act on them, we will get better results than if we give a shot-gun prescription. I believe the doctor will get just as good results with half the drugs he has given. There are a few things which, if we know thoroughly, will be of a great deal more service to us than if we have a smattering knowledge of disease of the heart. We are practically correct when we say a murmur with the first sound of the heart is aortic obstruction or mitral regurgitant; if heard with second sound very probably aortic regurgitant, &c.

Dr. Reynolds—Dr. McBrayer has tabulated quite a lot of interesting data, that should bring out quite a lively discussion. It seems to me that if we, as physicians, would look more carefully to examinations of the chest in the future than we have in the past we would find more cardiac lesions than now reported, and soon enough to do some good. If we wait until we find kidney trouble or syphilis or rheumatism, and gradually find leakage, then of course we cannot do any good. I agree with Dr. McBrayer heartily in his treatment with the exception of one drug, digitalis, that is, in the prescription he has given it. As Dr. Morris says, we all know digitalis acts as a vaso-motor constrictor, and when given taxes the heart as well as regulates and slows its action, but when combined with some drug, say nitroglycerine in even small doses to counteract the constricting effect, then we have a capital heart tonic. Prophylaxis in my opinion is the only thing good for valvular diseases except rest in bed. The less drugs we give the better off the patient will be.

Dr. Dunn—I have nothing to add to this excellent paper, or to say in criticism of the same. Last evening, in looking over some new medical journals, I saw something new to me, and the fact that heart lesions was to be discussed this evening called my attention to it. Some man in Berlin has written in the German Medical Weekly about some sort of truss for heart disease. He called attention to the fact that in many cases pressure gave relieve, and although he could not classify what cases were relieved and what were not, some cases were distinctly relieved by pressure upon the apex, and pursuing that observation he constructed a sort of truss which caused some pressure over the apex and which would

relieve and change the axis of the heart. He tries to explain it by the fact that it probably relieves the tension upon the aorta. I thought it might be of some interest and value to us in those cases.

Dr. Burroughs—I wish to say I have no confidence in there ever being a truss fitted externally to the chest wall, giving support to the wall, to raise the apex in such a way as to give relief to the heart, without hurting the circulation. Physicians are largely responsible for a great many heart lesions. We allow our patients to get up from a bed of acute illness where there has been decided disturbance of the circulation, where the heart many times has been going from 140 to 160 a minute, and as the heart goes down to 80 or 90 for a few days, instead of keeping them in bed and letting them rest we let them get up, until there is irritation of the valves and finally leakage. In regard to the treatment of these cases, where leakage is already going on, and we have the murmurs, I have found a most excellent plan, where we have dysponea and shortness of breath, is to take the patient from all work, no mental duties to perform, and no mental labor, and to have them lay in bed fourteen or sixteen hours a day in a recumbent position, and in that way we frequently find that they will go on for years and years and not have any trouble. I have a case now, and for about eighteen months I had the patient spend 14 to 18 hours per day in a recumbent position, and the result is he goes on now attending to his work. I have a case now under my charge. Edema had already started in his feet, although there was no trouble with his kidneys. The edema has entirely disappeared. For the first two months he attempted to spend 20 hours in bed, and he is now spending about 14 to 16 hours, and is much better. I think keeping to this treatment and keeping the bowels open is worth more than all the medicine.

Dr. Jordan—I had a patient with aortic murmur and insufficient heart action that brought great distress. She said she did not think pressure would help, but I found that straps around the waist gave the greatest comfort. I have never seen but that one case, but I bound straps across the back and it gave great comfort. There was no pleurisy, and as far as I could detect, there was no pericarditis. It seemed to be a plain, simple valvular lesion which pressure relieved.

Dr. Burroughs—The superenal capsule has been in use for a comparatively short time, and I have seen some comforts about it, but I do not think it has been sufficiently in use to justify an opinion. I agree with Dr. Morris, that in those cases more relief can be obtained from nitro-glycerine than from anything else.

Dr. McBrayer—As regards the alkaline treatment, that is all right in acute endocarditis, especially that due to rheumatism, or concurrent with rheumatism. I believe the latest thory is that endocarditis is a condition similar to that of rheumatism of the joints, but if you expect to relieve a dilated heart with alkaline treatment you will not succeed.

In a complicated heart that is without dilation you do not need to give anything, but when you get dilated heart, as shown by rapid and irregular pulse, præcordial distress and other things, then you need digitalis. As Dr. Burroughs suggested, if you place the patient in a recumbent posture and give digitalis with nitro-glycerine, which I have used frequently, he will overcome the trouble. The only objection I have to digitalis is the trouble with the stomach. One of my patients was unable to take it in any form, but I have the most happy results from digitalin combined with nitro-glycerine, strychnine and caffeine. In regard to the truss, I had read of it somewhere, but I gave the subject so little thought I do not remember now where I saw it. Rest is one of the greatest things, and I think rest in a recumbent posture is one of the best measures of prophylaxis of of the valvular lesions or any process affecting the valves, and at the same time it is an absolute necessity where you have a serious failure of compensation because any increase of exertion is bound to cause death. I am sorry one feature of the paper did not receive more discussion, that is with regard to anæsthetics in labor and the use of the forceps.

The Prevention of Recurring Hay Fever Attacks.

Edward W. Wright, M. D.

It is an old and well known fact that different individuals are diversely disposed toward external harmful agents.

In a certain number of persons, this difference depends upon the general constitution of the body; while in others, there are local conditions that produce the differences in behavior.

If an individual is markedly susceptible to the action of a certain agency, this condition is termed a predisposition. If another has a special susceptibility to a particular external influence—a susceptibility which is more marked than in the vast

majority of mankind—it constitutes an individual peculiarity, and is termed an idiosyncrasy. If, on the contrary, an individual is insusceptible to the action of an injurious force, so that the symptoms of that affection do not appear when he is exposed to that particular injurious influence, that condition is called immunity. Idiosyncrasy afflicts one while the many are free. Immunity frees the one once afflicted.

Idiosycrasies in human life are many. Morphine, given in ordinary doses to the majority of mankind, produces its normal action; while in a certain few individuals it causes disastrous results. Some few persons cannot eat lobster or strawberries without having a skin eruption. Belladonna is instilled into the eyes of many children every year by the direction of an oculist, and the ordinary physiological effects are secured; while in a very few these eye-drops cause a scarlet coloring of the face, a hot, dry skin and a night of mild delirium. In a rural district where poison ivy abounded, eight persons in a population of five hundred and twenty-nine had been poisoned one or more times. These are examples of idiosycrasies, and their number can easily be augmented.

The great majority of the inhabitants of our land can live among the grasses and flowers of field and garden and fully enjoy their beauty and fragrance; but there are a few persons in nearly every locality who suffer distressingly from the influences exerted by the pollen upon the mucous membrane of their air-passages. This small minority has an idiosyncrasy, and even these few persons differ in the causes producing it. One is affected by hay or roses; another succumbs to ragweed or golden rod.

No idiosyncrasy has been studied with greater zeal than the one in question. None has had its history, its mode of onset, its varied minutiae of symptoms and its great variety of cures and preventives more graphically and sympathetically portrayed by eminent men of the laity and studious members of the medical profession, than the one which has brought together this annual gathering. While these strenuous efforts have borne some good fruit, and caused some absentees from this meeting, yet the veterans and the recruits have not been able to attain their main object, causing a dissolution of this Association, and living thereafter with only the reminiscences of Bethlehem, White Mountains and Hay Fever. There has been the annual adjournment, but not yet a prorogation sine die.

To you, then, are now brought a few plain, simple words which embody a truth based on common sense, medical principles and some experience.

It is well known to most of you that the consensus of opinion of the best European and American authorities is that hay fever is a nervous affection. It is a paresis of the vasomotor nerves of some of the air-passages. In other words, it is a loss of control of the nerve-tendrils which regulate the size of the blood-vessels of the nose. This neurosis will account for all of the symptoms show in the career of an attack of hay fever. If any means—medicinal, hygienic or physical—can prevent the irritation of these nerve-filaments by the pollen of grasses and flowers, we will have secured immunity from hay fever. Again, you are aware that the three cardinal factors of this neurosis are deemed by competent and experienced authors to be constitutional, local and exciting; and your presence here today proves your belief in the absence of the exciting causes as the most important—in fact, the paramount.

In the study of this affection, you can readily understand that the general constitution is an integral part, because you know that many cases are hereditary; that many initial cases have immediately followed some overtaxation of the general nervous system, such as grief, business responsibilities or neurasthenia; and that a local nervous paresis must be influenced by the condition of the whole body. Likewise, you are well informed that an excess of uric acid or other impurities in the blood must bear a relationship to the nerves which control the current of blood. So then the constitutional elements must not be minimized or overlooked.

Again, you are well aware of the fact that local treatment of the interior of the nose has brought to a few immunity; to some, an amelioration of the severity and duration of their sufferings; and to others, no benefit.

In short, then, if *any* one should have the interior of the nose as smooth as a gun-barrel, it is the sufferer of hay fever. While in some cases, too much surgery may have been done in the nose, and a too free and frequent use of the galvano-cautery may have caused a second state worse than the first, yet it is always advisable to have conservative, judicious and conscientious treatment of the mucous membrane of the nose, that the sufferings through an attack may at least be lessened by having the interior of the nose in a normal condition before the time of a recurrence. This is emphasized by recalling that the blood-supply to the nose is particular. Ordinarily, the blood-

supply to the skin, mucous membranes, muscles and internal organs is uniformly distributed; but in the nose there are clusters of blood-vessels, which perform an important part in the course of a hay fever attack.

Yet, when the general nervous system has been placed at par, and could pass a satisfactory examination by Weir Mitchell or Dr. Sachs; when the blood and other fluids of the body would be pronounced normal by a Haig, a Draper or a Purdy; when the interior of the nose would be regarded in a good healthy condition by a Bosworth, a Williams or a Bishop, we know by these witnesses before us that exemption from hay fever is not secured.

We must go still further, and give the interior of the nose a resisting power sufficient to withstand the irritating and exciting influences of the pollen of grasses and flowers. We must overcome its supersensitiveness and susceptibility to these dust-like grains which incite the recurring seizures of hay fever. We must eradicate the idiosyncrasy, and regain the natural insusceptibility.

My story is simple. By frequent and gentle friction of the mucous membrane of the nose, we can quickly lessen its supersensitiveness, harden its tissue and give it a decidedly greater resisting power. The method might be termed frictional massage. This plan is similar to the everyday cold sponging and rubbing of the body as a preventive of colds, sore throats and bronchitis. It is the same means adopted by the nurse in training and the recruit in the army, who hardens the skin and regulates the blood-supply to the feet by cold-water-and-alcohol sponging.

The object of this frictional massage of the mucous membrane of the nose is to acquire sufficient resisting power to be unmindful of the presence of foreign irritants. By this method, we secure immunity.

The simplest method of friction would be to use a piece of surgical cotton on an applicator. This is gently but firmly rubbed along the floor of the nose, beneath and over the full length of the lower scroll bone, all about the middle scroll bone and along the full length and breadth of the septum, paying special attention to the posterior end of the inferior scroll bone, the interior end of the middle scroll, that portion where the septum joins the soft palate and any areas that appear unusually sensitive. It must be done slowly and thoroughly. Each part must be gone over several times, and this friction may be applied once or twice daily. We thus accustom the nose to the impact of foreign substances on its mucous membrane, and harden its constituent parts.

We could saturate the cotton with medicaments which would have an additional astringent and hardening effect, or an alterative action upon the tissue to which it is applied. I purposely do not mention these, because they are easy of access in a previous article, and because I wish to emphasize the great importance of a thorough and continuous massage by friction. This method could be supplemented by sprays of an astringent nature, or vapors of an oily chasacter; but we must gradually give to the mucous membrane great power of resistance, and to the sensitive nerve-endings and ability to withstand the force of any special irritating or exciting agent.

This mode of treatment cannot produce any destruction of tissue, any injury to the mucous membrane or any impairment of function of the nose.

When we realize that the mucous membrane of the interior of the nose is an area of considerable size, we comprehend the importance of making it firm, non-sensitive and resistant to the action of foreign influences. The interior of the nose measures, from the tip to its posterior boundary, about two and a half inches; and from its base to its apex at the centre about two inches; so that each side of the septum would have about four square inches. Remembering that the outer wall of each of the interior of the nose is not a regular surface, but that the scroll bones afford a much larger area of mucous membrane, we can estimate the surface of that wall to be at least six square inches; so that there are not less than twenty square inches of mucous membrane in the nose to be affected by the irritating pollen of flowers and grasses. An equal area-four by five inches of erysipelas on the face, or of eczema on the neck would be deemed an extent of surface sufficient to receive vigorous local treatment. In like manner, the extent of interior nasal surface is well worthy of attention with a preparatory and preventive air. While your mucous membrane is in an irritated and supersensitive state during the period of hay fever activity, this method may appear to you harsh, provocative and inflammatory; but fortunately, there are several months in each year when you would be surprised and pleased to observe how easily and comfortably this method of prevention can be carried on. It is pleasing to record and a satisfaction to affirm that this method has in the past two years proved a positive and decided preventive and given many patients the desired immunity.

In the month of May, you should ascer-

tain if the mucous membrane of the nose is in a healthy condition, and if not, you should adopt the treatment that will most quickly secure a normal state. In the latter part of June, begin the local hardening by frictional massage, using with it whatever medication will most speedily give to the mucous membrane the greatest resisting power. Treatment should be repeated every second day for three weeks, then twice a week until ten days before the time when the hay fever has been accustomed to appear.

To say the very least, this method of prevention, which has no present or future disadvantages, is worthy of a thorough and conscientious trial.

Concerning Smallpox and Vaccination.

By E. D. Payne, M.D., Towanda, Pa.

To the Editor:

The fact that smallpox appears to exist in different sections of the country and has during the past three or four years, that that there have appeared numerous articles on the subject in the medical journals, as well as in the secular papers, and that I do not agree with some of the opinions I have seen expressed on the subject, is my excuse for this letter.

The first question that naturally arises in the mind of the reader is, By what authority does this man speak? My answer to that is this: I have been through two pretty serious seiges of the disease and I have seen in consultation a number of others, where the physician in charge was in doubt. The first was on board ship, a number of years ago, at which time, during a period of about three months, I had nearly forty cases, running from the mildest varioloid to severe cases of the confluent variety. Of this number I lost one case of the confluent variety. This man was the subject of fractured ribs and extensive pleuritic adhesions. When the stage of pulmonary congestion took place, the lungs were not able to perform their functions. The second series was in a large public institution, with a contagious house in the grounds. This house contained thirty beds, which were kept to their full capacity for a period of about four months; as fast as one bed become vacant another case was ready to occupy it. In this series there were many confluent cases and many of the so-called black or hemorrhagic variety; and, of course, there were very many deaths.

I may also say that I think I never made a mistake in the diagnosis of this disease. The first three cases I ever saw were at first reported as measles by other persons, but I immediately called them smallpox, and the result justified my opinion.

From the above it will be seen that I make pretty large claims to accuracy to promply diagnose this disease, and it may be inferred that I have some pretty strong opinions concerning it. It remains to be seen whether I shall be able to justify these claims.

On approaching a case, there are some cardinal points to be borne in mind: 1. The manner in which the eruption appears. 2. The progress and behavior of the disease. And 3. The manner in which the eruption disappears. All other questions are subsidiary to these. The questions of previous vaccination, the prevalence of an epidemic, and the prodromes are merely those of inference, but of course have their weight.

There are two diseases with which it may be confounded on the start, viz. measles and chickenpox. The first need not mislead one long; the second may be of great importance to determine as soon as possible, for it may be the difference between consequences of a serious character to a family or friends or those of light weight. If then, we are called to a case in which there are headache and backache, a flushed face and some disturbance of the stomache, with high fever, we say to ourselves, Is this a case of measles, or something else? The question of whether or not there is a congested conjunctiva or not, is not of much consideration, as between meales and smallpox, for it will appear in both. At this time run your fingers lightly over the surface of the face, and if you find hard lumps, like small shot under them, you are safe in calling it smallpox. But let us say, you do not see the case until the eruption begins to appear. Now note well the character of it; does it appear as papules or vesicles? Though there is a difference in the locality of the first appearance, as between smallpox and chickenpox, remember it is not of so much consequence where it first appears as the character of it; that smallpox comes up as a papule and progresses to a pustule, while chickenpox comes up as a vesicle and remains one. Also, that in chickenpox, successive crops of vesicles appear day by day. But, in a case which I shall narrate further on, I will show that even here one may be in doubt for a short time.

Next. What is the behavior of the eruption after it appears? In chickenpox, I have said that it comes up as a vesicle and remains one; further, at maturity, without any secondary fever, it begins to dry up

and shrivel away, forming no scab and leaving no pit. On the other hand, in smallpox, the papule progresses to a pustule and, on the eighth or ninth day, a secondary fever, sometimes called the maturating fever, sets in. At this time the pustules break, the pus oozes from them and a scab begins to form, which, after a few days, falls off or is picked off, leaving a decided pit behind. So that, if one is in doubt up to this time, he cannot be longer. Great stress has been laid on the umbilicated form of the eruption, and while this is the rule in smallpox, I think most practitioners who are familiar with chickenpox will confirm the opinion that it is often seen in the large pox of the other variety, and that may even be dum-belled in shape.

I have seen it stated by a man who stands high as a sanitarian, that this secondary fever does not always appear, nor does a peculiar effluvia or smell, usually considered diagnostic, and utters a warning lest practitioners be deceived by its non-appearance. I take decided exception to this statement. I regard these two as not only present, but as pathologically necessary in the course of the disease, and as affording material help in arriving at correct conclusions. I may ask and answer a question: Can a person have smallpox twice? I answer, yes. During the year 1866 it occurred to me to be in the Straits of Magellan. While there I saw a man with a well pronounced case of varioloid who bore on his face the marks of a severe case of discrete smallpox which he contracted in Valpariso two years previously. Not only that, but he showed on his arm a very good vaccine scar, which he said was the result of a vaccination made a number of years before the attack of smallpox. Although I think that such cases must be extremely rare, I cannot ignore my own observation. Why I think he was not entirely protected by his original vaccination, I will discuss when I come to that part of my subject.

To illustrate the above remarks, I will relate two cases which for a time gave considerable anxiety. About five or six years ago I was called into a house in the centre of our town, to see a case the nature of which I was not informed of before entering. I found a large, well grown girl for her age, of about twelve years. She had come here on a visit a few days before from a neighboring State where, it was said, there was more or less smallpox. I found the whole upper part of her body covered with an eruption, which, to look at, might well give one pause. The eruption as it had come out certainly had very much the appearance of smallpox. Added to the embarassment, was the fact that she had attended a large party of children the evening before, and the question of whether or not she had inoculated the whole neighborhood was a very important one. I declined to give a positive opinion in the case under twenty-four hours. Meantime I watched the appearance of the eruption as it came out, which I found to be a succession of a crop of vesicles, and that these appeared among what seemed to be pretty well matured pox. In some of these the serum was so thick and yellowish that they strongly resembled those of smallpox. Not only that, but they were umbilicated and dumbell in shape. I certainly never before saw such a case of chickenpox; but as the fever was passing away and the eruption was appearing as vesicles, I did not, on the second day that I saw it, hesitate to pronounce it chickenpox. From that time on she hardly knew that she was sick, though kept in bed until her recovery. No other cases appeared.

The second case I shall mention was even more puzzling. This case was an adult, a man. Chickenpox is usually an affection of children; smallpox affects both children and adults. The history was as follows: A traveling troupe of theatrical players appeared at a town on the border of the State line, about twenty miles from this place, after having traveled through the State, which was said to be infected with smallpox, and left a trail of infection behind it. This infection spread to a railroad center about three miles nearer to us. At this railroad town was a man who had his home and family in this town. He worked off and on with a man who lived there. Both slept in the same bed; one by night, the other by day. The man who lived in the town was first taken sick, with an eruptive disease, called chickenpox and treated as such. He was confined to his house only for three or four days, and then went to work again. In due time the second man was taken sick and came here. How long it was after the first appearance of the eruption and his return here before I saw him, I do not know. But, after his eruption was pretty well advanced, his physician asked me to see him. The man's idea was, that as his room-mate had the chickenpox, he also had it. I have no doubt that as I first saw him most practitioners would have called it smallpox. It certainly had that appearance; the forehead, face, arms, and upper part of the body were well covered with the eruption, and it looked like smallpox. The physican in charge was positive that if the original was not in the form of vesicles, some he had watched cer-

tainly were. The fever had passed away. I would not give a positive opinion on that day, but promised to see him again; in fact, I saw him several times during his illness. At my second visit I found several crops of vesicles appearing among what had looked like pustules. During the course of the eruption it appeared in the palms of the hands and soles of the feet, a condition believed by many to be pathognomonic of smallpox. Much of it certainly looked like pustules; but they never broke, no pus oozed from them, no scabs formed, and the apex gradually shrunk down, dried up and passed away. There was no secondary fever, no smallpox odor, and his wife, who waited on him, and his little children running about the house did not take the disease. It was in the summer, and the doors and windows were open most of the time.

I have been thus minute in my description, that a case might be made against me if I was in error; for, at my second visit I had told the physician in charge that I did not think it a case of smallpox, in which opinion I felt myself confirmed when I saw there was neither secondary fever, no odor, and neither oozing pustules nor formation of scabs. It may be said that his room-mate did not have chickenpox, but that he had been the subject of a different infection. To which it may be answered that, as there appeared to be but one character of eruptive disease in the town where he got his infection, they were not infected alike but that he got his from his fellow. Second, the fact that no odor was apparent, might be accounted for by the further fact that the doors and windows were open most of the time. But it must be remembered that these were closed at night and that the odor is of a persistent and peculiar character, which would be so intensified during the night as to be easily perceptible in the morning. It is a well-known fact that a non-professional person who has ever had to do with smallpox, will be able to tell the nature of the disease by the odor before he comes in sight of it.

Finally, if this was a case of smallpox, the cardinal points by which we recognize it must be revised, viz: the difference between the appearance of vesicles and papules turning to pustules, the pustulation and oozing, the scabs, the secondary fever, and the mode of its disappearance.

Now as to vaccination. Why was it that the man I saw in the Straits of Magellan had the smallpox after he had been vaccinated and had a very good scar to show for it. Simply because he had not been rendered immune by that vaccination; his susceptibility to the infection had not been exhausted. And why again did he have varioloid after having had smallpox? Again, I say, the attack of smallpox had not exhausted his susceptibility. There is no other explanation of it. When it was formerly said that a vaccination would protect a person against smallpox, or at most he would only have one of varioloid after infection, it simply meant that he was either rendered entirely immune or partially so. If entirely so, he would not have even varioloid; if partially so, he probably would have varioloid after exposure. Then, can one be rendered certainly immune, and if so, how? I answer yes, and in this way: First, vaccinate with a good reliable virus; then, when you have a good pustule as the result, and it has healed, vaccinate again. If you get no second postule, you may consider your case protected. But if you get a second one, however small, vaccinate again. At the third attempt you will probably have no more than a pimple; but the point is, vaccinate until there is no susceptibility left. I have seen many cases of varioloid where there was a scar of vaccination; some apparently good, some bad, and some indifferent. The explanation is, the vaccinator was content when he got a scar, and did not make proof that he had a perfect one. Especially would this be so if he were vaccinated at reduced prices for so much a head on a contract. I need not describe what would be the appearance of a good scar, further than to say I would rather see a small circular one well pittied than a large one not well pittied, especially if the latter one was smooth and shiney. I take no stock in the supposition that the immunity is exhausted in seven years. At the contagious house above mentioned, there was a man and his wife who had had the smallpox a number of years previously. They had three small children who had not had it, but who were vaccinated on the arrival of the first case. Not one of these was attacked during the time the disease was in the house, or afterwards. I was vaccinated when a boy, so long ago that I can only just remember the circumstance. The scar is now so faint as to be hardly percedtible; yet I have been repeatedly exposed to smallpox without being infected. Up to within a few years whenever I have been exposed I have been vaccinated, but at no time since the first has it "worked." At the time when we had so many cases at the above mentioned institution, I vaccinated myself, with no result. My wife was with me at the time, and I vaccinated her and got a good pustule. I revaccinated her, and got only a pimple. She had been previously vaccinated, when a child. Neither of us were

affected by the exposure, nor were any of the help about the place.

What kind of virus shall we use? The present plan of using animal virus has almost, if not entirely, superceded the old one of using humanized virus, for three reasons: First, on account of increased population and demand, a larger supply has been called for; second, it has been thought more effective in producing immunizing effects; and third, by its use the danger of transmitting other diseases from individual to individual is avoided. I am doubtful if these propositions hold good, except in the first mentioned. It seems to me (without accurate data to work from) that there has been a larger percentage of smallpox through the country, since animal virus has been almost constantly used, than formerly, showing that present methods are not superior to the old ones in suppressing the disease. And as to the transmission of the disease, there can be no more difficulty in securing virus from healthy children than from heifers. From children we have to avoid those who have specific disease or who may be subjects of inherited vice not yet perceptible. In heifers the most dangerous things to avoid are anthrax and tuberculosis. It can certainly be no more difficult to determine between healthy and unhealthy children than between healthy and unhealthy heifers. The family physician knows his families; and the old time family physician preserved the scabs from the healthy children he vaccinated for future use, and he got good results from so doing.

But there is another feature in the case, viz: the different constitutional effects of the two methods. Such very unpleasant constitutional effects, with terrible inflamed arms (and these not due to vice in the system) are often so apparent as to make one feel he wished he had not been vaccinated. I think that this result is the ground-work and mainstay of the prejudice which certainly exists in many places against vaccination and stimulates the tirades against it by the anti-vaccination societies. While I would certaily prefer to vaccinate my own children and those of my friends with humanize virus (which has been a safeguard to me) I confess that in centers of large population, especially among the poor, squalid and vicious classes, it would not be safe to trust to humanized virus from the same source.

"Love gives itself, and, if not given,
No genius, beauty, worth nor wit,
No gold of earth, no gem of heaven,
Is rich enough to purchase it."

Evolution and Life.

By Joseph Clements, M.D., Kansas City, Mo.

Before entering upon the discussion of our subject, we wish to premise the distinction between evolution as a fact and as a theory. The fact of evolution is incontrovertable. From nebula to the universe; from spermatozoon to the babe and on to the man; from the acorn to the oak is an evolution. As to theory or hypotheses, there must be a variety according to the standpoint from which the great evolution fact is viewed—the agnostic, the idealistic, the materialistic and the theistic. But the fact of evolution does not exclude or ignore God and immortality; the most devout believer has nothing to fear, rather much to gain, by accepting the fact; for the beauty, the grandeur and magnificence, and importance of the universe and of oneself as an integral part, are enhanced when contemplated from the standpoint of evolution.

We have narrowed down our discussion to Evolution and Life. We have not to do with evolution as embracing the universe, save incidentally and illustratively; but chiefly and especially with that small portion of it where there is life, a very small part, indeed. Let your mind sweep over the vast material universe, though we must apologize to the Savants of Idealism for our use of the term material, if, indeed, there be no actuality in these things save as we create it in the qualities with which we invest them, adapting terms to the smallness of our mental capacity. I repeat, let your mind sweep over the material cosmos, and how small and insignificant a part is the living part; that which lives! What we can see is less than a millionth part of what is. (Sir Robert Ball). And of that which can be seen and which we invest with materiality, not one-thousandth or perhaps millionth part is living. So that the living as compared with the non-living plays so inconsequent a part as to its spectacular, that in the material universe the living part is microscopical and scarcely recognizable. It is pleasant to think of the people of Mars, but outside our own planet we do not *know* that life is a fact. And if, as Prof. Fiske, in "Outlines of Cosmic Philosophy" so ably argues, that the grand finale, the ultimate end and purpose in the vast scheme of evolution is the perfected man, the acme and ulterior of all design being reached in this; then it is not inconceivable that all there is of life is here, where man is.

Nevertheless, animate other worlds with life, and it is yet a fact, that the living in comparison with the not-living is microscopical and inconsequential as to its proportions; and while evolution as a fact has to do with the production of all cosmic things, the theory has its sphere chiefly in and with the small part of the living world, and after the beginnings of life.

In a comparatively recent work, "Evolution of Man and Christianity," by McQueary, the author says: "Back to nebula is as far as science enables us to go. From nebula, cloud atoms, with their inherent forces, evolutionists argue, that by branching and rebranching, &c., the universe in all its magnificence and complexity has been produced." But what a mighty span or jump from nebula to branching and rebranching! Countless ages have intervened, life has been introduced meanwhile. And what have branching and rebranching to do with the magnificence and complexity of the universe outside the very small living and organic part? These come into play after and as a result of life.

Now this is a point of vast moment, the fact of life, the introduction of life, the part it plays in the great evolution scheme. Our theory of evolution must be in harmony with the full recognition of the transcendent nature of life, the imposing spectacle of its introduction, and the infinitely important part it plays in the great drama of evolution. It shall be ours to evidence and maintain this.

Life is a totally different force and phenomenon from anything preceding it. It has phenomena and environment and laws—if it can be said to have laws in regard to its ultimate primordialism, different from, above, inconsistent with and almost antagonistic to all other phenomena and force. Microscopically small in its substantial embodiment, the bioplasm, it nevertheless plays an essential and constant part in the evolution of the higher and more elaborate forms of material things. It is distinct from the non-living and inorganic world in particulars most marked and vital. Of things organic and inorganic we know their chemical constitution and can define their atomic weight and molecular arrangement, while of the living matter we can make no such analysis. And what is known of it, what can be seen of its primordialism, and demonstrated it at once stamps it as unique in itself and totally unlike and superior to any other phenomena outside the living world. Of this Prof. Lioneal S. Beale says: "Without bioplasm or living matter, evolution of any kind is impossible. Bioplasm manifests powers not possessed by matter in any other state or under any other known circumstances or conditions, powers of directing, moving, governing, rearranging material particles, powers of analysis and preparing for synthesis, powers of preparing for and providing for, and as it were foreseen future changes and developments. These wonderful powers, as it seems to me, can only be accounted for by attributing them to some power or influence operating in every living particle, but in the living world only; vital power, biokraft." Mr. Herbert Spencer speaks of this as "a psychical factor, a factor which no research whatever can disclose or identify, or get remotest glimpse of." So far as it is known, or possible to be known at present, the living matter is primordeal, both as to source and act in all other living matter.

How puerile and feeble, then, is the thinking that can predicate upon the "Correllation of Forces," the doctrine that "Heat, light, electricity, magnetism, chemical affinity, mechanical, vital and (some claim) mental forces are transmutable into each other, back and forth." Among the forces said to be transmutable, surely this vital force cannot be classed. There is as great a distinction between the phenomena and results of this vital force as compared with those of any other, gravity, chemical affinity, &c., as between those of physiology and mentality, of which Tyndal or Ferrier assert. "Molecular activity cannot be made to pass into mental activity," Mr. Spencer teaching that the "action of bioplasm cannot be accounted for by the properties and processes of chemism."

Surely, I repeat, vital force must be omitted in the list said to be transmutable back and forth. And of the origin and introduction of this among the forces of the cosmos we may well ask, Whence? When? How? So distinct, so different in nature and powers, so unique and far-reaching in its effects and results, its introduction marks an epoch vastly different from and greater than that following the evolution of any other force or law. Go back in the cycles of the evolution process to the introduction or at least the observable operation of the supposed first law or force, gravity. Under the operation of this law the cloud atoms, drawn to the centre by its mighty force, began initiatory movements in the evolution process from void to form. Chemical phenomena requiring other forces were originated giving rise to chemical affinity, with attraction and cohesion, followed by accretion and aggregation, other minor or

accessory forces springing into play and making possible the phenomena we term Crystalization, with its various "systems" of operation in inorganic cosmic laboratories, by vaporization, solution and fusion, step by step, higher and higher, until there stood forth this mighty cosmos, every part of it outside the insignificant, as to its spectacular, living world, as complete, doubtless, as we view it to-day. For the non-living, the inorganic is distinct and independent of the living, more so, it would seem than the organic is of the inorganic. Under the completed operation of the law of chemical affinity, its first and simplest formula H_2O was it not? the atomic and molecular arrangement of the various inorganic structures of the universe are revealed and formulated. But when we come to the newer, latest epoch, Life and the living, we not only step higher but into another order and range of things, different from, inconsonant with what has preceded it, no doctrine of "Correllation of Forces" is tenable inclusive of this.

Look at life as a force supposedly evolved from some combination of lower forces, which of them would you select and combine to produce life force or vitality? Study the phenomena of vital force, its laboratory and environments, its conditions and con comitants and results—the living world. Its depository and material manifestation, the bioplasm, is so microscopical as to almost elude observation, in its ultimate analysis, even with the most powerful aids to vision known to modern science—less even than 1–100,000th of an inch in diameter, 90% of this being water, on the authority of Prof. Beale. The essential, initiatory, primordial act, where the life of the bioplasm with all its wonderous powers are transferred to its successors, is in centres where no human eye has penetrated. Its chemical composition, its atomic and molecular arrangements, if such crude and gross qualities have any relation to it whatever, are unknown. It is structureless and colorless. None of the attributes and properties and terms used as setting forth other matter are applicable to it. Nothing is like it, nothing suggesting or foreshadowing it in all inorganic things throughout the universe, or in the laws and forces evolving them. Aggregation is not growth, accretion suggests nothing of life processes, by no stretch of imagination can one see analogy between crystalization and growth Inorganic processes are totally unlike life phenomena, aggregation and accretion simply mean increase by addition from outside. Increase and formation by external addition is all one can possibly mean by crystalizat on, with its six systems of method in formation. All inorganic processes are chemical, mechanical, external; life phenomena are vital, from within, being above, superior to the other, itself making use of the chemical and other lower forces in its own vital operations. Crystals do not grow nor anything else without life. So essential and vital is this life force, that if life ceased in any part of the globe it could only be reproduced by a new importation of bioplasm. (Beale). The writer has seen in the South plantations where crops of cotton and corn have been taken, without use of fertilizers, for several generations until there are small areas that will not support life—will "grow nothing." The laboratory and conditions and environments of nature are interferred with, the soil is exhausted. Now extend the area to a county or a State or an island, and destroy the seed and you have the great biologists hopeless picture. Give it time and the soil will reinvigorate itself; it may be aided by chemical fertilizers, but what will give general strength to impoverished soil like a crop of clover turned under? and because it is teaming with bioplasm, the source and depository of life. I am simply emphasizing the essential and vital part played by the life force. Vitality, life is the cause and result of vitality. Alcohol is said to be the only addition that can be made to the vital force energy, and this too is powless in this connection, for "*spirit*" though it be it is not vital force nor can it ever produce it. We must revise our medical and pharmacal nomenclature. It is no longer correct, it never was, to speak of the "active principle of drugs," for in the inorganic there never was any active principle, for there never was life, and in the organic, the vegetable, did not its active principle cease its activity in its manipulation and before it reached its medicinal form and condition? Life force, vital force alone can give life, sustain life, form tissue, repair waste and maintain the vital functions. The thousands of hogsheads of quack, unscientific medicine consumed by the people in the vain hope that it will cure disease and impart health, is a delusion of the most appalling nature and consequences. Vital force alone, abnormal and pathologic, is the occasion and operative cause in disease; and vital force alone, normal and therapeutic, will be the active agent in the return to health. I magnify this life principle as alcomprehensive and alsufficient, and the vital force phenomena, its *modus operandi*, as seen in the "special functions of each ultimate life principle, expressed in the terms sensibility, sensation, instinct and contractility,"

is with much clearness and force and originality set forth by Dr. W. R. Dunham, of Keene, N. H.*

Bear in mind that no evolutionist, whatever hypothesis he holds, claims that any combination of lower forces *now* known can produce life or the life force. Whatever may have been, it is not now within the range of the possible, yet it is argued that since conditions in earlier stages of evolution progress were quite different from those prevailing now, therefore what is not possible now may have been possible then, a suggestion which we accept for all it is worth. Moreover, look at the fact and phenomena of death, that necessary and essential associate and concomitant of all life. It both precedes and follows every primordial act of life. What is it? What occurs when the bioplasm, passing on its life and powers to the nutrient matter, which was non-living when it was taken up and into the substance of the living matter, it "*dies*," part of itself being made up into formed tissue, part of it being eliminated as waste? Is there anything analagous to this in the non-living world? Does not this evidence the great gulf existing between the living and the non-living?

One point further, and which will more fully evidence what we have but barely touched upon, and which embodies the results of a lifetime of study and observation in the discovery of the fact of the absence of nerve endings and the rational conclusion at which Prof. Beale arrives, of complete nerve circuits. He says: "In man and complex organisms in which the nervous system is highly developed, nearly all inseparable units extend without any solution of continuity, from nerve centres to the ultimate peripheral distribution of the finest nerve fibres, and their bioplasts, and as I think, I have made out, back again to the central bioplasts, the so-called nerve cell. I have tried to prove ends and end organs, but have utterly failed. I therefore still must hold to the existence of end circuits in every nervous system, and believe the very simplest, the unit, the elementary nerve organ is a complete and uninterrupted circuit. . . . . In each particle there seems to be a general movement *from* centres. The new substances introduced acquire the living state in these centres. In consequence of the vital movements *from* centres, centrifugal, currents of fluid holding in solution nutrient matter, are produced in the opposite direction—centrifugal. Here, where no eye has yet penetrated the non-living becomes living, possibly according to the operation of some vital laws, but somehow independant of and removed from the operation or influence of laws physical and chemical.

"The laws of matter are not the laws of life. While matter lives the ordinary properties of the matter seem to be in abeyance and cannot be made evident. I claim for Bios, Life, Vitality, Biokeraft, a place as far above all cosmic matter, its forces and properties, as the imprints of living things and thoughts we alone can understand are above the passive stuff we make and mould and fashion as we design and will."

In this superlative exhibit of primordealism, of that sublime phenomena the initiation of life, unseen by any mortal eye, taking place in centres within centres, setting aside, independent of, triumphing over all known laws and acting only according to the law of itself, this one all dominant force exists and acts; and in all the cosmos there is no other instance where the higher evolved force is so reckless of and triumphant over the forces said to have evolved it.

Looking more closely into the living world there are distinctions to be observed between the matter now living and that which has lived-formed tissue. Tissue occupies a place distinct from both the inorganic and the living matter, and there is a further distinction to be seen in the place and part held and played by the non-living nutrient substance held in solution in the blood, and in the lymph spaces and other interstices, by means of the fluids circulating within them. Each occupies a position and relation to the other at once unique and important.

In the primordeal act and phenomena of life, the nutrient substance is taken up and into the substance of the bioplasm, and becoming vitalized by the connection, it receives from and takes on the life and powers of the bioplasm which had taken it up, the preexistant bioplasm transferring, as we said, its own life and powers to its successor. The parent bioplasm, therefore, dies, part of itself at this instant becoming formed tissue, the remainder being eliminated as an excretion or waste.

The laws aud forces affecting and governing the nutrient matter and formed tissue, cells, etc., play no part with the bioplasm itself. So long as it remains in the living state it is superior to and independent of all known laws and forces and having passed on this property and these powers and become formed tissue, it at once becomes amenable to the ordinary laws and forces governing all things. Still further,

*See Journal of the American Medical Association, July 8, 1888.

we have spoken of an almost overwhelming sense of varied and far reaching power of the bioplasm when in contemplation of it. Of the chemistry and psychology of this we know nothing. While bioplasm of every kind, so far as known at present, is alike as to this lawlessness in its primordialism, there is at the same time diversity and degrees of evolvable power in the different kinds. A bioplasm seems to have the power to transfer to and to endow its successors, one with a single and simple purpose to accomplish, and another with a multiform and intricate and complicated design to fulfill, as seen in the body, and the even more wonderful diversity of function carried on by these various tissues. How simple and circumscribed the life and power of the bioplasmic germ of a bacillus as compared with a spermatozoon of the higher animals or man! And in the evolution of these latter, what a diversity do we see in the bioplasm of a pus corpuscle, a tubercle, a cancer?

How various the product of bioplasm as seen in bone, skin, mucous membrane, nerve fibre; how different the function of each, and how marked that of the latter which transmit voice, a psychological thrill and create a "sensation," and even evolve a thought, or at least make it possible?

To get a comprehensive view of this I need only refer you to the wonders revealed in histology, in microscopical anatomy, and the varied and multiplied physiological and psychological functions performed by this variety of tissue. And when we reflect that none of these life properties and powers have any counterpart or analogy in the non-living cosmos, the conviction that other source and cause for the origin and introduction of this life force, less remote, and less unlikely, and less apparently incompetent, than the hypothesis of the evolution from the lower forces, is to our mind irresistable.

The fact and forces of evolution account for the production of the inorganic cosmos. The doctrine of the correlation of forces, the interchange or interplay of the various lower and higher manifestation of energy in the inorganic world is well seen and admired, but when you come up into the living world, this other, lesser and insignificant as to its bulk and proportions, but far more wonderful and great in the part it plays in the combined cosmos; when you fix the place and sphere of this life force, it must stand out unique and alone, not related as the lesser forces are, not interdependant nor correlated. It is a part of no system, as our planet is a part of the solar system, it has family relations with no other in these essential particulars, it has causal relation to force or energy higher not lower than itself, and it suggests and needs, not a different authorship to be sure, yet it must certainly have had a different introduction, an introduction commensurate with its stupendous importance and its awe-inspiring and dazzling, though microscopical phenomena.

Bringing our thought to a focus: The break in the evolution process was so sudden and complete, the gulf appearing so wide and deep, the phenomena of the one, the living, being so far removed from and inconsonant with the other, and with all other forces, its super-lawfulness, does it not indicate that the most rational and probable theory of the presence of life, with all its phenomena and results, is not the improbable if not the impossible evolution of this so much higher from lower forces, so unlike and unpromising of such results, and as a consequence and part of the general evolution scheme, desirable as it may seem to be; but that at some point in the grand evolution process there was a particular and special introduction of a life force, worthy of and consonant with the unique character and nature it possesses, and the distinguished and important sphere it occupies, and the infinite results it has and is destined to achieve.

There may be serious difficulty encountered in accepting the hypothesis of a special introduction of life at some point in the past evolution cycles, but does not the greatest objection to it arise from the emphasis it puts upon the fact of the gap and gulf in the evolution hypothesis? But that is already there; this does not create it. No possible bridging of the gulf has been achieved after a half-century of effort. And this hypothesis of a special introduction leaves the great evolution scheme untouched save in the necessity of the adjustment on some hypothesis sufficient, of this introduction of life as a new and exceptional phenomenon in the phenomena of evolution. As to the method of this we have at present nothing to offer.

Of the time, the conditions and environments at the initiation of life we may venture a suggestion. It can hardly have been before, probably long after, the evolution and play of the law and forces of chemical affiinity. And this not because of any particular causal relation of the one to the other, that is apparent. Association does not necessitate or even suggest cause in itself. The law and forces of chemical affinity were in operation æons, doubtless, before their results were apparent in

the grosser and more material of cosmic things. As we have not yet perfected our ultimate analysis of life force in its material depository, the bioplasm, the same may be true of other forces, and while H_2O seems to be among the first formula to be made out from the operation of the law named, who can say that our ultimate analysis is complete here, and that other less material in their nature long ages before water appeared were not evolving under these same laws and forces?

We have seen that the infinitissimal bioplasm is but 1–100,000th of an inch in diameter, 90% of this being water, and it is yet to be demonstrated that it can exist in any other condition and proportion. Life force could only then have been put into active operation and embodiment after the evolution of water as a chemical composition of H_2O, and this must have existed somehow and somewhere long before the products of vegetation which the dewdrop so beautifully and artistically adorned. But since these phenomena occurred in the dim and hazy ages of past æons, perhaps our suggestions may be as dim and hazy, and we will leave to some abler mind and pen the task of making these things clearer.

And yet we cannot escape the pressure of one other thought. The burden of our endeavor has been to evidence and maintain the importance of life as a comic force, and to point out what for want of a better word we have termed its unique position among the forces of the universe. In further persuance of this, let me suggest that you blot out from among the forces of the universal comos, this life force. You may not have to touch any of the myraids of suns and systems and planets, with their related and attendant spheres.

Possibly our own insignificant speck in the universe of worlds about us and afar off, alone contains life, or is the sphere of its phenomena. But however that may be, go back as far as science will allow and enable, to the beginnings of all things. Provide and arrange and grade your forces on the strictest plan of evolution hypothesis. Evolve the lowest into the higher, and the higher with their assistant aids into the still higher in the evolution of the universe, and what is the result? You have no interference with, no derangement of your graded evolution forces. Everything, all conditions, all phenomena would remain as they are, save what obtains in the insignificant living world. Life and the living world are the culmination and completion and embelishment of the universal cosmos as "modern improvements" so to speak, to a dwelling. A house is a house without them. There is no necessary causal relation between them, and had no forces other than those "*resident*" in the primitive house operated, it would doubtless have remained as at first, four walls and a roof.

The universal cosmos would have been grand and majestic, with water and metals, gold and silver, and rocks and earth and air and light and electricity. Crystals could have been picked up had there been some one to admire their beauty. Flashes of lightning and roar of thunder could have been seen and heard had there been eyes and ears to see and hear, and the beautiful rainbow would have invited beholders as it does today, and the aurora borealis would have commanded exclamations of ecstatic admiration, but alas, without response. The universal cosmos, minus the living part, would have been complete in itself, as an evolution of lower forces into higher, with the great and wonderful phenomena which are so stupendous and magnificent in the inorganic universe. Life, comparatively early in the evolution cycles, had its beginning, probably, yet there seems to be no causal relation to the preexisting and operating forces, and the blotting out of life would make no destructive break in the complete evolution of the universe, outside the living world. Without the operation of the law of chemical affinity there could be no water or rocks or many other things, but they would be just as they are now without life, or vital force. All the great laws and forces of the universe are independent of life force, and would go on just as they are now without it. Life force calls to its aid and makes use of them, but the reverse is not the fact in the case. I repeat, blot out this one force, life force, and you affect probably not one millionth part of what is. Now destroy some other law or force, any one of the correlated forces, and what would you do? You would be the greatest of all iconoclasts! It makes one tremble, almost, to think what would happen! When Mr. Huxley was a boy he spent his leisure time in *eliminating* the qualities of material things. Finally it occurred to him that he had "whittled away the material world from beneath him," and he became alarmed at what he had done, and no wonder! But if our iconoclast should destroy one of the great forces in the inorganic universe, the catastrophy he would bring about would be so overwhelming and dire that he would not have time even to wonder, and it would be no "*whittling*" process this time. Does not, then, the conviction seem irresistable, that in its nature, and in the relation it sustains to

the cosmic forces, or rather its want of relation, vital force is so peculiar, so anomalous, so unlike in its pose and position to all others, that it required and had an introduction and beginning, in harmony and commensurate with the place it occupies and the destiny it is working out?

We have not said one word of that other life, is it another? the soul life, the incorporeal, the mental and spiritual, that which is the source of our self-conscious ness; that which thinks and knows, wishes and desires, rejoices and is sorry, and gives us our conscious identity, our sense of personality, whence arises conscience and the superior emotions and the will, and relates us to things higher even than the wonders around us and within us. What of that life? Whence came it? What lower forces evolved it? It is in a sense distinct from the animal life. "You cannot write mind in the terms of matter." (Spencer, Huxley.) Mind is different from, yet related to, the physical forces and phenomena. There is a physical basis of mind, the cortex of the cerebrum, the grey matter of the brain substance in their convolutions and centres. There is intimate association of the one with the other. It is possible that every variety of mental act may be associated with definite and distinctive changes in the molecular arrangements of the brain tissue. And as in the *other*, the lower phenomena of life, the material embodiment and depository of life, force is the bioplasm —"the psychical factor of which no research can disclose or get remotest glimpse of," so in this, the brain is the "*organ*" of the mind, and its medium of communication with and from the physical world; but the "*psychical*" factor and phenomena, save in its results, as completely eludes every research in this as in the other.

Shall we have to claim as unique a distinction between this human mind, and the life physiology, as we have had to between life force and the other forces? To say that "mind sleeps in plants, dreams in animals and wakes in man," is delightfully poetical, but what does it mean? But this paper is already much too long, and of this mind question, as of much else, I must confess I do not know, *nec me pudet fateri nescire quod nesciam.*

Cystitis Accompanied by Malarial Hæmaturia.

By L. H. Warner, A. M., Ph.G., M. D.
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Amongst the numerous conditions which may act as predisposing causes to cystitis without actually causing inflammation, we meet with retention of urine, uric acid and exposure to cold. A chronic congestion of the mucous membrane may occur through the accumulation of uric acid and a subsequent formation of calculus, but as a general rule inflammation of the bladder is brought about through infection with micro-organisms which find an excellent culture medium for their growth and development in the stagnated retained urine.

Cystitis begins acutely and frequently becomes chronic, and is divided into simple, suppurative and specific cystitis. Simple cystitis implies inflammation of the bladder from a mechanical cause, or through chemical irritation, and is always followed by a suppurative cystitis caused through infection by micro-organisms.

The characteristic features which lead to a diagnosis of cystitis are frequent urination, accompanied by pain, turpidity of urine from pus, blood, or both, the presence of the latter two indicating a condition of suppuration along the genito-urinary tract. In cases of chronic cystitis the aforesaid conditions may be produced through a calculus.

The infrequent occurrence of cystitis and malarial hæmaturia combined, and the symptoms presented leading up to this diagnosis after several consultations, are recited in the following case:

Patient, J., female, thirty years of age, married, no children, has for some time been complaining of severe headaches, chills, pains on left side below ninth rib, general malaise. Eliciting previous history leads to the belief that above cited symptoms are due to external injury received some months previous and local treatment is ordered. No relief being received patient was examined and exhibited enlarged spleen and tympanitis in region of bladder. Urine frequently exhibits turbidity, no albumen, no sugar, and specific gravity of 1016. Salol and quinine were administered with no relief, and the urine showing a deep color as though tinged by blood was examined chemically and microscopically with the following results:

Color: amber. Odor: of decomposition. Specific gravity: 1010. Reaction: neutral. Albumen (nucleo albumin), no sugar. Quantity of urine in 24 hours: 46 oz. Urea per oz.: 2.0 gm.; in 24 hours: 92.0 gm. Microscopically: large amount of uric acid crystals, squamous epithelium, large number of red blood corpuscles and pus cells, few leucocytes, streptococcus, micrococcus, bacillus proteus vulgaris and bacillus coli communis.

Upon these findings a diagnosis of suppurative cystitis was made. Under ordinary conditions the bacillus coli communis is a comparatively harmless saphrophytic, but the constipated condition of a patient may convert it into a virulent pyogenic germ. A treatment should, therefore, be ordered which would keep the intestinal canal as aseptic as possible, and calomel and salol were ordered. At the same time Piperazine Water was ordered to eliminate the uric acid. Whenever and wherever uric acid is found in sufficient quantities to interfere with the proper emptying of the bladder, or so as to allow residual urine to accumulate, or as to cause the bladder walls to become congested or corroded, some uric acid solvent should be employed as medication, and previous experience has demonstrated the value of Piperazine Water. For the next 48 hours the patient showed little improvement, nor did the daily examination of the urine show any change for the better excepting the decrease of uric acid. At the patient's request Dr. I. was called into consultation, and drainage of bladder by means of a soft rubber catheter once a day and washing of bladder with 0.1 per cent. solution of nitrate of silver was resorted to. Patient experienced great discomfort and neutralizing solution of sodium chloride had to be used. During the following 24 hours patient suffered with pain, chills and had a temperature of 101.2 deg., and quinin sulph., 5 gr. every 4 hours, was ordered. Examination of urine gives the following data:

Color: deep amber. Odor: characteristic. Spec. grav.: 1012. Albumen: (nucleo albumen). Sugar: none. Urea; 1.1 gm. per oz. Microscopically: few uric acid crystals. squamous epithelium, large amount of pus cells and red blood corpuscles, some of the latter inhibited by malarial parasites, few leucocytes, micrococcus and bacillus proteus vulgaris. Diazo reaction of Ehrlich, positive.

The above facts revealed through the microscopical examination of the urine, combined with other clinical symptoms presented, led to the following method of treatment:

Piperazine Water *cum* Phenocoll in wineglassful doses every hour, using not less than one quart per diem, relying upon the uric acid solvent properties of the Piperazine and at the same time upon the antimalarial properties of Phenocoll. Repeated examinations of the urine for the next 48 hours revealed the fact that the amount of uric acid eliminated was insignificant and that the red blood corpuscles had also disappeared. Still a great amount of pus was eliminated, a numerical count of same, by Feiss Thoma counter, giving 23,000 to the millimetre. Additional treatment was ordered in the nature of caps ol santal, m. v, one every 2 hours for first 24 hours, and irrigation of bladder by means of Piperazine Water was resorted to. The Piperazine Water was heated in hot water bath to a temperature of 82 deg. F., and one pint was introduced into the bladder through a previously sterilized soft rubber catheter, and in this manner the bladder was washed twice daily for 5 consecutive days. Microscopical examinations of the urine revealed daily improvement.

Within 48 hours after the first bladder irrigation and administration per os of Piperazine Water no trace of uric acid appeared. Spec. grav., 1016. The amount of urea found was 0.7 gm. per oz., and the numerical count of pus corpuscles gave 370 per millimetre. The patient's general condition improved rapidly, and the bladder irrigations were discontinued after the 5th day. Light exercise, restricted diet, and the use of Piperazine Water, one quart per diem, were continued, and 3 weeks from beginning of illness, patient has entirely recovered.

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The Comedy of Ethics.*

By Paul Paquin, M.D., Asheville, N. C.

On the first of the year the teachers of morality beseech man to bow down his head in meditation and search his heart for the weeds of knavery, corruption and debasement of all forms. He is entreated to investigate himself and his surroundings, introspectively, retrospectively and prospectively with the view of improving his character, broadening his good will and increasing his opportunities for success. This sort of inquisition, though many of the good resolutions that it inspires die prematurely, is good for the soul and the body. Born of the principles of progress and reform, it tends to generalize charity, to spread mercy in the land and to infuse in the hearts of men the spirit of tolerance.

If it is fitting that man should thus scrutinize himself and resolve to do better on the birth day of the year, it is a hundred fold more appropriate and would seem exceedingly desirable that on the birth of a century those so fortunate or unfortunate as to be struggling with the problems and vicissitudes of life should face the mirror of

*Read before the Buncombe County Medical Society.

their past and turn upon it the flood-gates of all the light at their command. The reflections of one's self obtained thereby may not flatter us, but they will serve a good purpose in the evolution of justice, particularly if the pictoral lesson is received in good spirit and honestly considered.

The sum total of the predominating personal interests of bodies of men give to such bodies their controlling character and their written and unwritten laws of conduct. If it happens that vocations be dominated by men whose interests rest in conditions generally in harmony with the environments of each member of and the evolution of civilization general accord, success and contentment is the reward; if, on the other hand, the ruling factors of a vocation find their interests better served by discord with the spirit of the age and their individual surroundings, there results benefit to the few, violation of established rules by many and discontent among all.

In viewing the various vocations of the day I have paused before each one, considering its past, present and future. The lawyers I found keeping pace with the advancement and changes of environments, abreast of everything progressive and useful. Fearless of the glare of publicity or the barkings of the remaining few among them who still preach the glory of antique dogma, they dare to respect and judiciously consider the spirit of commercialism which is today the chief characteristic of enterprize. The lawyer is guided by codes of procedure and of relationship, but he practices law as openly for emolument as for justice, dealing charity when necessary. As to professional conduct and advertisement he seems to recognize nothing but the instincts and principles that contribute to the making of a gentleman.

The profession of arms, which, in many parts of the world and not many years ago, deemed it honorable to murder confreres in duel or by ruthless court martials for trivial offenses, indeed, sometimes for mere allegations, now endeavors to adopt the more humane methods of civic jurisprudence, which means that the accused shall be given the privilege of scorning challenge to duel without impugning his honor or courage and, in the case of accusation, the right to counsel and legal defense before a tribunal.

The member of the profession, who has enough of gentlemanly and humane feeling in him, and enough of the manly courage necessary to acknowledge his merciful heart by word or deed, is rising to the top in spite of the cruel brutality which has so long characterized the training of the embryo soldiers, to the deep disgrace of all nations and Christianity. In harmony with the ever increasing exhalation of human refinement, of justice and mercy, the true soldier, hissed though he may be by some of his brethren, dares to throw aside the barbarious code of professional conduct—a code which began in savagery and serves no purpose now save the perpetuation of harshness, falsehood and iniquity.

And so it seems to be in all vocations, including those fettered long by the ponderous chains of arbitrary power—rules born of circumstances nearly all buried and forgotten.

The conduct and practice of professional men today is largely governed by the conditions of the present. Did I say all? No not all. The medical profession alone has lagged a little behind. Under circumstances of the day it was deemed fit to promulgate a written code of laws for the conduct of the members, and that code has never been repealed. All of it breathes good will and the spirit of lofty principles. We all admire and revere its obligations, but it binds its adherents, of which I am one, to trying conditions, because the present status of civilization seems to have erased the raison d'etre of some of its enunciaitons.

In scientific and practical achievements the medical profession is abreast of any vocation in the world. In charity and morality in dealing with the public it has no superior, but in some of the rules which it enforces on all who aspire to recognition in the medical world—particularly in America—it often throttles ambition in the younger brothers, arrests their pecuniary success to the benefit of those longer established, and too frequently furnishes a cloak for hypocrites to blot the character of deserving fellows. While no one who respects the profession, would for a moment depart from such of the ethical traditions as to work for the greatest good to the greatest number in and out of the ranks, many of the strongest advocates of the old code deplore those commandments and laws in it, which force the physician to a conduct in conflict with the spirit and the accepted behavior of the present; they grieve that its provisions are abused for lust, they deprecate the vast damage which has been inflicted upon the integrity and standing of the body professional by ethically protected misconduct, selfishness and narrow-mindedness; they deplore the impetus which the wrong impressions that certain conduct under the code has given to quackery, like Christian science for instance.

The question as a whole is a most serious one—grave enough to be termed a tragedy

—yet there is so much of the ludicrous in it, so much of the grotesque, in fact, in the thousand and one means by which a vast number of prosperous as well as struggling members among alleged codists endeavor to draw attention, that one cannot but feel amused.

If Balzac were alive today he could devote a few books of mirth and satire to the exposition of the intricate delicate and questionable points involved.

In the first place the physician begins his career under the misleading assurance but delightful prospects that if he follows the code always, in every detail, the established physicians will stand by him and he is bound to prosper. He hopefully hangs out his tin plate with his name in gold or white letters on a funeral back ground and he sits in his office to wait. He must be most cautious in not letting people know who and what he is, for all the eyes of the medics of the neighborhood are upon him. Woe unto him if the printer's devil gets his name in the papers. Woe unto him if he has enough ability or tact or appearance to attract attention. For the green monster that lives so universally in medical craniums will rise in fearful jealousy and put malicious notions in their minds.

So long as the young physician remains carefully concealed with his skeleton and books in his gloomy office, so long as he scrupulously avoids getting any patient, just so long is he considered a good fellow by all who have preceded him in the local field of practice. But if he is unfortunate enough to get a call and collect a fee from a patron of an over-scrupulous practitioner his troubles begin. A feeling of protest, sometimes rebellion, arises in the bosom of the losing Esculapius. "To the dogs the code!" Shall a man who has been in practice thirty years in one locality permit a youngster just out of the hospital to beat him out of a patient? Appreciated for so long by so many clients shall he, in his declining years, be limited by principles of ethics a century old? No. The code is not for him. It is for the young men who have the impudence to aspire to make a living in the practice of medicine.

And so the novice in medicine, saturated with the spirit of fair play and gentlemanly conduct which had been inculcated in him for years at school, starts out in practical life with high ideals. He usually receives his first shock in code violation from the too common unprofessional treatment of his older brothers.

Asheville, North Carolin, is an ideal place as an ethical centre. Here every doctor is refreshingly inhailed in his treatment of his colleagues and confreres. Indeed, so pure is the professional honor that when a new physician comes here some of the saints of the fraternity become terribly exercised lest their haven shall be polluted. They go to tremendous trouble and no little expense to rake his past with a fine tooth comb. It has been said that those guilty of such sublime ethical conduct might be actually attempting to quarantine their patrons within safe lines for revenue instead of trying to uphold the sanctity of the code, but this is surely a base slander. That kind of manhood that noses in the archives of private life of a stranger brother in the hope to expose such misfortunes of his as might tend to exclude him is truly brave manhood. To be sure its inquisitions are made in the dark; its office to office canvass and its resorting to hired agents do not impress one as being strikingly honorable, but then to uphold the dignity of the ethics of our immaculate profession, a fellow may be forgiven such little officiousness. The secret tarnishing of a brother's character or the throttling of his efforts to live and support his family is not considered absolutely devine, but for the code some people may think it necessary.

If, perchance, excessive zeal for the cause of our noble science has caused any one to appear in the role of hypocrite the law of retribution will even up things in due time.

It has been my good fortune to travel extensively on two continents and to meet more or less intimately our brethren of many climes. Everywhere, except in Asheville, have I found chaffing and gnashing of teeth on account of fractures of the code.

There now appears before my mind's eye a little western town, nestled charmingly amidst gorgeous mountains and peaks, almost as beautiful as ours. Some thirty doctors were there on my last visit, all of them members of a local society, most of them expounding the code with more veneration than they would the Bible, many of them violating it as openly or in secret.

Among the most exalted of the tribe was a gentleman of high educational attainment, high pretensions, high in self appreciation. And well he might be, for the name of Dr. Rectumis Higho was in itself license for any claim or crime. He was also high on his legs—his altitude rising several inches above his confreres. His hair was a cross between titian red and muddish bay. His face was smooth, clean shaven and as fresh as the skin of a spanked baby. His nose was usually wrinkled and carried way up in the air, as if he sniffled

something bad from below or smelled something sweet in heaven. At medical meetings he had a plausible way of inflicting his audience with torrents of words to express insignificant ideas. His qualifications as a surgeon, which had matured and ended on the day of his last dissection twenty years before, he paraded as "a continuous growing accomplishment" to strangers of both the laity and profession. When he sat, his long legs made an inviting settee for any suitable second party, so he and his family had concluded long ago that, for the dignity of the code, the examination of ladies should take place in the presence of a third party. On proper occasions, for display, he was as modest as a hottentot and twice as rapid. He then talked fastly and more learnedly; he sailed about at a lickety-split gait like a cat with a tin cup attached to its tail. But that was a little by-play because of his immense practice, and the infernal stitches he had to remove every few minutes from some one's belly, which he claimed to have operated upon. By his language one would conclude that he must have been continually under the influence of cathartics, so frequent were his operations.

Some one accused him of being rather intimate with boarding-house pulls and other means of drumming business but there surely was no truth in that terrible charge. It arose from some little incidents like the following which it was ungeneerously said had become a pernicious habit with him. One day he visited a hotel and called on a young lady guest who was resting there. "I have called only socially, of course," said the general doctor, holding his hat under his left arm and offering his right. With this introduction he bowed profoundly. "Eu—— I learned that you are a patient of my dear friend, Dr. Clapp, of Chicago. Eu—— I just called to pay my compliments. By the way, what did your father die of?" The young lady got scared and the doctor got a case. Consequently some brothers were displeased. They said that this sort of conduct was unprofessional and savors of charlitanism. Perhaps it is not altogether the most dignified conduct in the world, but the purest codist should not hold such a trifling characteristic as a crime against ethics. The man who pursued these tactics can't help it any more than he can forbear the ethical delight of saluting politely a brother he hates and then stabbing the "salutes" in the back. It is nothing compared to the flagrant violations of the code he has often been guilty of. His conceit is pitched to the highest note of the flute, his heart and soul are down to the lowest of minor keys. He does not scruple to go to patients of other doctors and prejudice them against the latter and then steal the case. And yet he remains within the American Medical Association! He aspires to the Presidency of the M. V. M. A,

There was also a throat specialist in that town—a weazen faced, chicken breasted, bespetacled, bald-headed little man. He was of great importance, judging from his fastness of gait and fussy demeanor. At first his sign read: "Dr. Sloto Cartilege, Laryngologist," which is no nigardly designation for a little fellow. His sign board ran clear across the street. Surely no one could miss it. But in so small a place, away in the wilderness, though it was a popular resort, few people knew what the word meant. Consequently, later on, he added underneath in small letters, "treats the throat," so that his sign meant practically, "Dr. Cartlege, laryngologist and throat specialist." Being the only culonit of his class within thirty miles he prospered, for every doctor about sent him their very bad sore throats—personal and professional—and he travelled to many towns. One day a man referred to him by an occulist proved to have enlarged tonsils—on seeing the patient weep he discovered also occlusion of a lacrymal duct. Of course the "throatist" at once examined into the channel and naturally entered the nose and the eye. Lo, and behold! In the former he found an offending septum, in the latter conjunctivitis and nephritis. All those things are surely connected with the sore throat, he reflected silently. He opened the mouth and saw a catarrhal discharge from the posterior nares and a congested and enlarged tonsils. What a mine for a poor doctor who had been so foolish as to voluntarily limit himself to the throat! While he examined and inspected he meditated and cogitated. "Could all these diseased conditions be cause, or a part, or the consequence of the tonsilitis? Did they have any relation intimate enough to be termed one malady? Above all, could the combination be claimed as a throat disease?" It was indeed a trying position for a conscientious man; a difficult task to come to a conclusion, but he did it. The post nasal catarrhal discharge made the connecting link. After giving his conscience paregoric he diagnosed the affection under the designation of "tonsi-naso-lacrymitis" with complications, and treated everything in sight. Presto! Zip! He felt squarely within the code. He still remained a "throatist," pure and simple. The trusting eye man, who had referred the case to him, demurred, but it was useless. No court on earth

cared to assume jurisdiction and nobody seemed competent to declare the laryngologist out of order. To be sure the written code and association rules were there, but they were not invoked. It seems that the more violently one ruptures the code the more surely he will be let alone. He continued his combined specialties. Of course he met his waterloo eventually. The gods that equalize things caught him and relegated him to the humble ranks of beginning strugglers, but to this day he is a "laryngologist," though he has permanently added some side issues of general medicine as special specialties. The last I heard of him his card read as follows:

"Dr. Cartilege,
Eye, Nose and Throat.
Piles a specialty, also the heart and consultations."

"Gives attentlon to accouchements."

In the same resort was a junior puritan. By virtue of family prestige, I was told, he had weathered the ethical delinquencies of his predecessors in the field and had caught on, with one hand at least, to the merry-go-round. He was a handsome blackheaded fellow—at least he thought himself so, for in the earliest years of his career he had his picture "tooken" in the altogether, save for the fig leaf which he had permitted for ethical dignity and "adamite" decoration. He was a general specialist, with a propensity for curing infants p. d. q., if you will forgive the vulgar abbreviation. Indeed he excelled in the art of arresting any kind of intestinal warfare in cherubs. No case of diarrhea or dysentery was too "rumbunctious" or vicious for him. Where others failed with the regular curative remedies, he would ridicule calomel, and radically cured with "misterine" and various other proprietary urins and "sich." He was remarkable indeed for he never did lose any case in babies and rarely among older persons. So people flocked to him both because of his "Appolonaris" physique and the marvelous power of a curist. He was always bursting with business, though they do say that he was a good man in spite of the millions he earned. But every saint must prove his stamina before receiving registration in the big book of holies. So the powers supreme directed that Dr. Sonney Curio should be tested in his morals and his virulence and then slandered about the result of the experiment. His satanic majesty was directed to put bees of jealousy and mendacity in his bonnet and to make them buzz there frantically with the regular tune of the bees of ethical purity and ethical warning. The tempter told Dr. Sonney Curio how beautiful and pure he was; how charmingly developed his muscles and fig leaf; apologized to him for his unintellectual visage and curled lips by saying that only angels and the devil were competent to see the least trace of inferior quality in them. Dr. Curio naturally swelled up. Who would not?. His satanic majesty then said unto him: "For all these graces the powers that rule all things in the world have appointed you the guardian angel of the medical profession. You are therefore ordered to preach the gospel of ethics, and to exclude from your circles all new men that are not as good or pretty as yourself, even if they be doctors of medicine who have standing abroad. And don't scruple at persons who may reach conditions where they might compete. Above all things sacrifice every one who has been fool enough to permit himself to rise to distinction or notoriety and had his name in the newspapers. Last I admonish you to kill any physician who has dared to invent a useful remedy and given it to the profession gratis, even though the standard medical books should approve. Dr. Sonny Curio thanked God and Mammon for the august distinction conferred upon him and went to work with such ethical zeal that alienists for a time feared the consequences. And here comes the slander. It is claimed now that this puerile high priest of ethics has repented from the acts of folly and brutality that he committed while under the worse days of his spell and that today he claims still to be the Ceasar of the code and the anointed in professional conduct.

In another, much larger city, where doctors are supposed to eat, drink and sleep ethically there lived, a few years ago, a brilliant though humble looking doctor with sportive tendencies. His ethics were so blindingly sublime that he might have murdered his partner in broad day light and every eye witness would have sworn an alibi for him. His specialty, as painted on his sign and doors, was announced as follows: "Eye, ear, nose, throat and chest." He had meant to include the teeth, but the tooth mason next door had frightened him off. After a year or two of slow vegetation he had blossomed out suddenly as something great. His advertised specialty was rather comprehensive, but, you see, the medical society to which he belonged had a strange clause in it, (one, by the way, which seems to have been plagiarized, for I find it literally in the old by-laws of the

*Art. VIII. Any member advertising a specialty shall restrict himself to that specialty and shall not engage in general practice.

society) which made it desirable for any doctor not to burn the connecting bridges of any organ behind him. As the splendor of this flowering phenomenon developed, largely by the aid of other doctors who sent him patients, he realized his full magnificence and transcendent importance. His ideas of grandier grew apace of his professional success. So voluminous indeed was the flatulency of mind which arose in him that he seemed to believe himself greater than the code and to feel beyond the powers of its laws. So it came to pass that men stood open-mouthed at the trumpet sound of his praises churned out by some deluded mortal. Late in the days of his glory one brother who still remained undeceived and still believed in the specialist's integrity sent him a patient for chest examination. Dr. Probcis rendered the service at the patient's residence. He thumped and listened and spoke of infiltrations, consolidations, bacilli and cockeyed germs most learnedly. So learnedly in fact that the household stood around in awe, their eyes fixed on him staringly, as if hypnotized. "Doctor," said the male parent of the patient, "while you are here I wish you would look at another boy of mine who seems dull to-day." The good doctor did as requested. As a specialist purporting to treat only the eyes, ears, nose, throat and chest—only half of the body—he began with the eyes and went down by slow degrees to the diaphragm. Not a pathologic indication could he find, save that, under fever, the heart beat very fast. His specialty struck his mind like a trip hammer—conscience has the unpleasant habit of returning once in a while even to hardhearted men, you know. Beads of perspiration sprung out of the cavern of his head so fearful was he of finding no ground to hold the case. His thinking and grabbing machinery were considering the problem intensely. At last a bright thought shot through his wondrous gray matter—you know there's nothing like the sight or prospects of money to bring about bright thoughts. "Here is the heart, he pondered silently, beating harder than the drummer of a German band. The heart is in the chest. My specialty ends with the chest. Surely I am within the bounds of the code in taking this case! Pshaw! what a fool I was to be scared!"

And so he took the case of typhoid fever and had several others in the same family which had hitherto always had for family physician the very doctor who had sent him there. Naturally some little friction arose and the last supporter of the specialist opened his eyes. But alas! too late! When the local profession saw the wholesale trickery of the comprehensible specialist the bulk of general practice was in his hands. He snapped his fingers at protests. He retained his sign, but in practice concluded to bound his multitudinous specialties by the hair of the scalp at one end, the toe nails at the other, and the most external scales, of the skin all around, while he added the stomach as one of his most particular of special specialties. His great financial success seemed to keep him inside the benefits of the code but outside its jurisdiction for redress. He was, to his death, permitted to cuss within its sanctified precincts; he was allowed to denounce and traduce men who had attained distinction if it pleased him, but not a man dared try to enforce the clause demanding of advertising specialits to limit themselves to their specialty or change their sign to one not misleading. He was for years a privileged character who used the achievments of other physicians as his chief stock in trade to earn his own living, took all the credit to himself and abused his benefactors to the degree of actual persecution.

Instances of remarkable admixtures of ethical conduct, grable achievments and notoriety entangled with the case, might be multiplied. I might among others mention those who invent things like serums, and think they are great as a consequence or because somebody said so; those who create or improve instruments and patent them; those who issue new forms of pamphlets wherein incurable diseases are said to have been cured by the thousands. I might mention physicians who make germ water (watery extract) and sell it; those who scour the country with agents to rake in patients; those who persist in making calls to patients where they were called in consultation—just socially, you know; physicians who multiply medical colleges for the benefit of the vast advertisement of their catalogues and students; physicians who court newspapers and others who rebuke the reporters as the surest thing for a free "ad." Physicians who never defend the honor or integrity of a brother and never miss a chance to give them a damaging slap; physicians who glide as smoothly as Eve's temptor, and who, during unguarded moments, close their venemous fangs on a brother's heart, but it would take a volume of a million pages to enumerate.

The ethics resolve themselves into this: "The code contains nothing that a gentleman bred, born or raised does not know and feel and should not practice and many things so at variance with the present status and requirements of civilization that

all sorts of subterfuges are invented to defeat its provisions while appearing to respect it in toto. Witness, for instance, the conflicting situations existing with respect to the code, proprietary medicines and patented chemicals of foreign manufacture which so many prescribe. The ethics have dwindled down in a large measure to a comedy.

DISCUSSION:

A lively good-natured discussion followed, Drs. Fletcher, Morris, Burroughs, Watson, Williams, and Ambler participating. It was shown that many doctors everywhere violate the code seemingly because they have never read it and know nothing of its provisions; on the other hand some doctors plead ignorance for rather questionable conduct which ought never to stain the character of any gentleman. Other doctors have the idea that, because the American Medical Association permits the use of proprietary medicines when the formulas are fully published it also permits the use of patent medicines with secret formulas. While due respect of ethics obtains generally among the local men as elsewhere, the discussion made it plain that now and then members of the American Medical Association—among them men of great pretention as physicians, surgeons and codists deliberately and grossly violate the code generally for revenue, and yet seem to retain a certain degree of prestige and strangely enough, complete immunity from punishment. It seems that the chief reason for this is that no member cares to assume the unenviable responsibility of making charges and proving them. The trend of thought indicated that it may be well for those men not to forget entirely that patience sometimes ceases to be a virtue.

In his closing remarks, Dr. Paquin thanked the Association for the cordial reception accorded his paper, and said that, in as much as it was presented more for the purpose of family entertainment than as an essay, he would move that it be not published.

Dr. Burroughs, seconded by many voices, moved as a substitute that the papers be published in full, stating that it was a classical, timely composition that would prove beneficial to the profession at large.

The motion carried. Adjourned.

It is said that a bill has been introduced in the French Senate putting a tax upon unmarried persons of both sexes, who have reached the age of thirty, also upon childless couples who have been married five years. The intent of the bill is to remedy the decreasing birth-rate in France.

Does Aseptic Vaccine Afford Absolute Protection Against Variola. A Test Case.

By T. J. Lawson, M. D., Ute, Iowa.

I have recently vaccinated about 500 persons with the Aseptic Vaccine (glycerinated) of Messrs. Parke, Davis, with only eight failures and no bad results. Many of the persons inoculated thought they had not been successfully vaccinated, as they expected to have their arms in slings for a week or two. In my opinion, the sore arms produced by the old-fashioned points do not indicate a genuine vaccination at all, but are merely evidence that septic infection has taken place.

Fortunately I had an interesting case which demonstrated the immunizing efficacy of Aseptic Vaccine. A gentleman who had been vaccinated by myself with Aseptic Vaccine returned saying that it did not "take." I examined his arm and informed him that I felt sure he had been successfully vaccinated; but in order to be on the safe side I revaccinated with no reaction whatever, thus proving that he was immune.

Still my patient was not satisffed and expressed the opinion that if he were ever exposed to smallpox he would contract the disease. Then came the test: the man, his wife, and two children were exposed to the contagion of variola, and the wife and children had not been vaccinated. The wife contracted the disease in a severe form, and now bears its marks upon her countenance.

I vaccinated the children as soon as the mother was taken ill, and it is interesting to note that the youngest, a nursling escaped with a very mild form of varioloid, while the older child, of three years, and the husband escaped infection altogether. Indeed it so happened that the husband was the only help available, and he was able to attend night and day, upon the other members of the family. There is no doubt in my mind that this man escaped infection because he had been rendered thoroughly immune by means of vaccination with aseptic vaccine.

With reference to my method of vaccinating I would say that I do not use alcohol or antiseptics in the preparation of the arm for scarification, simply applying soap and water—I do not apply a bandage of any kind after operation, preferring merely to allow the scarified area to dry thoroughly until it presents a glazed or varnished appearance.

Protonuclein as a Remedy for Tuberculosis with Tabulated Report of Cases.

By C. W. Canan, M. D., B.S., Ph.D.
Orkney Springs, Va.

Four years ago we began to classify our cases treated with protonuclein and to keep a record of each, While the number of patients in each class are small, but we believe, sufficient to show that we have in protonuclein a remedy of very great promise. These patients were classified as circumscribed apyretic, circumscribed febrile, tubercular laryngitis, tubercular broncho pulmonitis, and tubercular broncho-pulmonitis with cavities. Microbian association was revealed by the microscope in each case. These patients were from all walks in life, ages from 6 to 70 years and of both sexes. On an average these cases were quite severe.

We will now give in tabulated form the number of patients treated in each class and the results obtained.

Circumscribed Apyrexia—39 were treated, 5 were cured. 18 improved, 9 remained about the same and 7 grew worse and died.

Tubercular Laryngitis—27 were treated, 3 were cured, 12 improved, 6 remained stationary, and 6 grew worse and died.

Circumscribed Febrile—32 were treated, 8 were cured, 16 improved, 5 remained stationary and 3 gradually grew worse and died.

Tubercular broncho-pulmonitis with cavities.—21 were treated, 4 were cured, 10 improved, 3 remained stationary and 4 grew worse and died.

While time sufficient has not elapsed, for us to reach a definite conclusion, as to whether those who have improved will continue to do so and can finally be classed with those already cured, or wherther they will ultimately succumb to the disease. Again, whether those pronounced cured will develop the disease in the future, only time can answer.

We believe that there would be little danger of this. Could they be kept direct under our suporvision, but they are now scattered North, South, East and West. While explicit directions were given each when dismissed as to habits of living etc. etc., yet they may not follow them and sooner or later retract the disease. We acknowledge that the per cent. cured with this drug in our hands has not been so large, but when we take into consideration the number that have improved, and who have at least a chance to get well, and those who have made no improvement probably have had their lives prolonged, the results have been most gratifying. This is clearly seen when we compare these results with those attained by other drugs. Mircoli of Milan has been and is today a great admirer of tubercular antitoxin for this disease, and has treated hundreds of patients with it The per cent of cures made by us with protonuclein has equaled and in some classes has been higher than that obtained by him with antitoxine. In that class of patients known as circumscribed febrile his cures with antitoxine amounted to 18 per cent; the cures made with protonuclein in the same class of cases was 25 per cent.

In other classes, especially those with cavities the per cent. of cures are in favor of protonuclein, as Mircoli only made 12½ per cent.. and our notes show 19 per cent. We do not claim that we have found a specific for tuberculosis, but we do claim that much good can be accomplished and that many lives can be saved by its judicious administration.

It is applicable to all ages, is easy to administer and is within the reach of all classes. In these respects it is far in advance of antitoxin.

When administering protonuclein the physician need not be afraid that it may prove the last blow to demolish an already tottering structure as is the case so often with tuberculin.

While the treatment of these cases were in progress several very important facts were noticed. First, that pyogenic associations are not acted upon by protonuclein. Second, that negative results are manifested when administrated to patients in which the disease is far advanced because the cells are unable to respond to the stimulus of the drug. Third, when improvement once begins under this treatment it generally continues until the system is permanently restored.

This treatment to be especially successful, like that for all other diseases, must be carried out on high scientific principals. The blood, urine, and sputum should be examined by the microscope before the treatment is begun and at certain intervals while it is in progress, that the progress of the case may be determined with acuracy.

The hygienic surroundings of the patient; his diet, exercise, dress etc. shou d receive the most careful attention by the physician in charge of tha case.

All symptoms that arise during the treatment should be met upon general principles. The dose should be small at first and grad -

ally pushed to the point of tolerence; then continued just below this point.

We have made notes of each case treated with Protonuclein and if space was allowed we would be glad to give the clinical report of several of the most interesting, but as it is limited we will only report one case of broncho-pulmonitis with cavities. This case came under our care August 1st, last year.

Mr. P. B., proof reader for years, age 28, good habits, in health had weighed 170 pounds, but now reduced to 129 pounds. Pulse 120 to 130, temp. ranged from slight above normal in the morning to 105 deg. F. in the evening. He had profuse night-sweats and a troublesome cough with considerable expectoration. Physical exploration revealed the wasted muscles, the characteristic neck of consumptives and the left chest was some-what sunken below the clavicle anteriorly. On auscultation various murmurs could be heard throughout the lung tissue of both lungs. On further examination a large cavity was discovered in the lower part of upper lobe of left lung. Consolidated areas were detected throughout the lower lobe of same lung and congested areas were fast forming in right lung. The microscope revealed positive proof of pulmonary phthisis. The red blood cells were greatly reduced in number and the per cent. of haemoglobin was very low. Tubercular bacilli swarmed in the sputum. The patient was so reduced in strength that it was quite a trial for him to walk from his hotel to my office, a distance of one hundred yards.

In ascending the stairs to his room he was compelled to rest before the landing was reached although the flight was comparatively an easy one. The following brief history was secured; family history good, no tuberculosis in his immediate family but a cousin, about his age, had died from it. His brothers were noted for their physical strength. Patient had contracted a severe cold in Feb. from coming out of a warm room into a very cold, damp atmosphere without an overcoat. Laryngeal developed which for a time symptoms threatened to destroy his voice. Pain developed near left nipple and under shoulder blade of left side with diffused soreness. His physician treated him for intercostal neuralgia, and about June the 15th, he was givea a bottle of Iodine, told to paint chest over painful region, and to go to the country and spend the summer. During all this time he was gradually loosing strength and flesh and harrassed day and night by a terrible cough. Without any after treatment except the counter irritation he spent the balance of June and July at a small inn near the summit of the Blue Ridge. Not improving he came to me the first of August as above stated. He was at once advised to secure room on the ground floor to avoid ascending stairs; regulate his habits (although good), and to take a short drive every day when weather would permit. Placed him upon Protonuclein every four hours, after thoroughly cleaning out intestinal tract with chloride mite followed by a saline purgative. He was allowed a nutritious diet, and one Anker's Bullion Capsule of beef three times daily in a cup of hot water. The week before, placing himself under my care, was exceedingly hot and trying, causing him to loose 9 pounds in weight. The weather continued oppressive and he lost 5 pounds during the first week of treatment.

The following two weeks he lost but little in weight, but temperature, pulse and general condition remained about the same as when treatment was begun. He had hectic flushes every afternoon, high temperature, and prostrating night-sweats every night. Heart beats became weak and irregular; prescribed 1-30 gr. of strychnia with each Bullion Capsule. Near the last of August he had a severe hemorrhage, that so reduced him, he was confined to his room for several days. The case now looked hopeless, but he regained slowly and at the end of two weeks he was allowed to resume his former habits. During this period and for some time afterwards there was no change made in the treatment except small doses of Heroin was given to control the paroxysms of cough and in this way guard against further hemorrhage.

September 15th, he was weighed and a gain of one pound was noted. The Protonuclein was now pushed vigorously, the Strychnia continued and Trophonine substituted for the Bullion Capsules as a tissue builder. The improvement from this on was very perceptible; the cough was less troublesome, the hectic flushes and night-sweats grew gradually less, the weight increased, the appetite improved and he could now walk some distance without suffering from dyspnea. Blood examinations showed an increase of red blood cells; the per cent. of hemoglobin was rising and the bacilli were disappearing from the sputum. By November 1st, temperature was about normal, pulse 90 to 100, night-sweats and hectic fevers gone and was gaining about two pounds per week. He could now walk two miles, by taking a slow pace, without feeling fatigued.

January 1st, found him weighing 149½ pounds with a fresh color; without restless

nights; no bacilli in expectoration; voice strong and blood supply greatly improved. At this writing his cough is very light and the case is exceedingly promising.

That he will continue to improve until a perfect cure is made, time only can answer, but judging the future of this case by the past we believe that a final recovery awaits him. This case is included in the classified list of cases given in the begining of this paper. One incident connected with this case has been omitted. About one week before the hemorrhage reported, the patient developed a gathering of the middle ear, which continued to discharge freely until about November 10th, when it ceased and has given no further trouble. This complication was treated under antiseptic precautions. The Protonuclein and Trophonine are still being continued while the patient improves daily.

Extracts from Report of Reserch Experiments on the Physiological Action of Petroleum.

By G. Burbidge White, A. B., M. D., Diplomate in State Medicine, University of Dublin, Late Examiner in Physiology, Senior Demonstrator of Anatomy, and Demonstrator of Materia Medica, R. E. S. I., Late Pathologist, Meath Hospital and County Infirmary Surgeon to the city Hospital for Diseases of the skin, Dublin.

In the report which follows, it is proposed to embody the experiments conducted by myself with Petroleum, as to its behaviour physiologically in the body, with a view of explaining the clinical effects (which have already been observed and recorded largely) that follows its administration in diseases of various kinds, viz., increase of weight, diminution of catarrh of mucous surfaces, relief of dyspepsia and constipation, relief of flatulence and cystitis, etc. After careful comparative chemical examinations, Angier's Petroleum Emulsion was selected because of its purity, palatability and because it was the best adapted form of Petroleum for internal administration.

Researeh experiments were made from Chemical, Bacteriological, Histological Physiological, and Clinical aspects.

Effect upon Fermentation, with regard to the chemical portion of the investigation in which I was ably assiated by Prof. Kelly, I found that while the Emulsion completely inhibits vinous, lactic, and butyric fermentation and the growth of putrefective bacteria, such as inhabit the alimentary canal, preventing the formation of spirit, lactic acid, or foul gases, it has no retarding action upon either peptic or tryptic digestion, both of which, we were able to carry on successfully in presence of a very large percentage of Petroleum Emulsion.

As a Solvent and Vehicle, another not less interesting and important fact is that the Emulsion is a solvent of considerable power both of drugs and of animal substances, such as oils and peptones which latter it also, emulsifies in larger percentages and holds, especially at the temperature of the body, for a considerable time, longer than would be required for absorption from the alimentary canal. Lard, Cod-liver oil, clear bacon fat, etc., are readily disolved in the Emulson, as also is butter fat, and an important effect of the mixture of these two substances is that the particles of fat are rendered more mobile, more easily miscible with water and fluids, and these fluids and these solutions of them pour out of glass vessels not clinging to the sides, which can afterwards be rinsed clean with plain cold water.

Peptones are freely taken up by the Emulsion to 50% and upwards, and held well in combination without separation, and a somewhat similar effect follows their admixture. The peptones pour more easily, and more quickly diffuse through water and fluids of lesser density, also pour easily and cleanly from glass tubes.

Quite a number of experiments were made to prove these results—as these substances are important factors in alimentation the importance of the effects of mixing the Emulsion with them will be manifest.

Bacteriological Experiments, by bacteriological investigation with the Emulsion it was found that no organisms could be grown in either pure Petroleum or Petroleum Emulsion; this is doubtless due to its affording no food for their nourishment, owing to the want of the property of chemical combination.

Physiological Ezperiments, the rabbit, cat and dog, were selected for the physiological portion of the investigation, which involved much time and trouble in its performance, and was undertaken to study the biological action of the Emulsion in the body. It will be, perhaps, unnecessary to state that the food conditions were equal and constant before and after the administration of the Emulsion, and care was taken to compare similar and not dissimilar conditions; when food was to be introduced into the stomach or bowels, peptone was

the food selected in conjunction with Emulsion.

A dog of previously determined weight was denied all food for a period of twenty-four hours and was given instead a quantity of Petroleum Emulsion, equal in weight to the amount of regular food which the dog had consumed in the twenty-four hours previous to the experiment. Under the administration of the Petroleum alone the dog lost two ounces in weight. This dog was then given small quantities of food in addition to a minimum amount of Angier's Petroleum Emulsion, and the weight of the animal increased in three days to four ounces in access of the original weight. This proves that while Petroleum in itself is not capable of maintaining body nutrition, given in conjunction with even small quantities of food, it, causes an increased utilization of the latter over that possible from food alone, so that the body weight promptly, steadily and progressively increased

Effect on Digestion, digestion and assimilation are natural processess and any product which delays, hampers or renders more difficult these processes, cannot help but inhibit nutrition. To determine the effect of petroleum on digestion, there was administered in some cases food alone ,and in other cases food plus Angier's Petroleum Emulsion to both persons and dogs, and then extracted the stomach contents for purposes of comparison. It was found that in the cases in which food alone was given, digestion was less rapid and less complete than in those cases to which were administered food plus petroleum. It was further noted in the above experiments that petroleum administered in ten times the regular dose, did not in a single instance induce eructations, gastric distress or toxic symptoms of any kind. These experiments prove that Petroleum facilitates and expedites digestion without producing a single symptom indicative of gastric irritation or toxic infection.

Effect on Absorption, absorption is the *sine qua non* of nutrition—food is of no value unless it is absorbed. The process of absorption is, however, a complicated one and embraces several distinct factors. Experiments to determine the effect of Angier's Petroleum Emulsion on absorption are hereby briefly recorded. In the first place, any agent that influences absorption must behave in a certain manner towards food products, digested and undigested. It has already been shown that petroleum has solvent properties possessed by few if any other agents. Peptones, for instance, the finished product of the digestion of albuminous substances, are completely dissolved by mixture with this Petroleum Emulsion. The mixture thus obtained is held in combination, is more rapidly diffusible through water and fluids of lesser density, and the individual particles rendered more mobile.

Another series of experiments with an important class of food stuffs. fats, showed that butter, lard, and even clear bacon fat are more immediately dissolved and emulsified; the fat particles become more mobile and freely miscible with water and other fluids, and the solution of fats in petroleum pours out of the vessel without clinging to the sides, and the glass may be then rinsed clean with cold water. *These experiments prove that the effect of Petroleum Emulsion on fats is exactly similar to that combined effects of the bile and pancreatic iuice; they explain one important step of the universally attested effect of Angier's Petroleum Emulsion on nutrition, i.e.. the perfect preparation of food stuffs for absorption.*

As to the effect of petroleum on the process of absorption itself following experiments are conclusive. Two large dogs were fed, one with peptone solution, the second with peptone solution plus Petroleum Emulsion. Ligatures were then placed around the oesophageal end of the stomach and around the duodenum just below the exit of the pancreatic duct, thus completely isolating the stomach. In the dog to which had been given peptone plus Petroleum Emulsion, absorption was not only more complete, but was finished in much shorter time than in the case of the dog to which peptone solution alone was administered.

That the Emulsion quickens absorption is again manifest in the following experiment; In a dog the bowel was ligatured near stomach, the upper end of the stomach was closed, and a dose of Petroleum Emulsion with egg peptone introduced through a gastric fistula. The animal lived for two hours; when opened after death the stomach was found empty.

Allowing for paralytic effects which follow surgical injuries, there is no doubt that these mixtures are more quickly diffusible and would be evidently more so under less artificial conditions.

Bearing in mind that has been recorded about mobility and miscibility of the particles of mixture of peptone and Petroleum Emulsion, the two following experiments show the effect of Petroleum in promoting absorption from the intestines:

A large dog, fed carefully, was selected for the following experiment: The vena portae was exposed, a canula introduced,

and the flow noted and controlled, feeding being effected by peptone introduced through a fistula in the stomach. Next, a mixture of about fifty per cent. of peptone and Petroleum Emulsion was introduced through the fistula, which was then closed.

Peristalsis was increased after introduction of peptone plus Emulsion; the afterflow, when absorption commenced, was noted to be greater per minute, thus indicating increased absorption in the latter cases in equal times. In regard to the effect of Petroleum Emulsion on peristalsis: A ligature was placed around the bowel of a rabbit and peristalsis noted to remain about the same above and below it. Peptone introduced through a fistula above the ligature caused little alteration. Peptone plus Emulsion after a short time caused a decided increase down to the ligature, while the bowel below the ligature remained as before. It was particularly noted also, that peristalsis was brisk, and persisted for quite a long time in those animals which had been fed on the Emulsion. In those which had not had the Emulsion, peristalsis almost ceased with death. Here then we have three things proved, viz: the effect of the Petroleum is to increose mobility and miscilibity of digested material by virtue of its lubricating action and capillary affinity, while increased peristalsis helps, by presenting these prepared materials constantly to the wall of the bowel for absorption, as well as aiding, by muscular movements, in sending the absorbed material up the veins.

Thus on purely experimental grounds, on evidence of the physical senses, is the action of Petroleum explained: It facilitates and hastens the digestion of food stuffs, prepares them for absorption and absolutely compels absorption of the finished products of digestion. This in turn explains the beneficial effects of the Petroleum Emulsion on nutrition; its principle of remedial action is not, as is the case with animal oils, to offer impaired nature a food stuff difficult of digestion and sure of irritating already troubled digestive organs.

Action on Mucous Membranes, some interesting experiments conducted by Dr. White and Prof. Kelly throw much light upon the specific therapeutic action of Angier's Petroleum Emulsion on mucous membranes. It was found by bacteriologic examination that the Petroleum Emulsion even when exposed to the air for days was entirely free from bacteria. Petroleum Emulsion contains no food material upon which bacteria can thrive. This explains the clinical fact that Petroleum Emulsion relieves the symptoms due to the by-products of the various fermentations, and shows why auto-intoxication—which results from the growth of putrefactive bacteria and their toxins in the intestines—is not possible when Angier's Petroleum Emulsion is administered.

A series of experiments were conducted in order to determine the effect of Petroleum as a vehicle for the administration of intestinal antiseptics. My results corroborated those of Robinson reported in the Medical News, July 14, 1900. Robinson states: "I have extensively given Petroleum four times a day, and reclaimed the oil from the faeces, and found it to contain some salol and its components, phenol and salicylic acid. This proves the carrying of a chemical antiseptic and antiferment through the entire canal. It is a solvent of iodine, sulphur, beta-naphthol, naphtaline, menthol, thymol, camphor, and iodoform. By combination of any of the antiseptics mentioned with Petroleum Emulsion, a germ-free condition of the intestinal canal is assured and which is not according to the highest authority, obtainable by any other means."

A clinical study of Petroleum Emulsion was now made equally as complete and scientific as the experimental study. Four cases selected at random from a large series illustrate the effects of the Petroleum Emulsion, and are herewith briefly recorded:

No. 1 case had been the victim of a severe railway accident last January, in the form of a violent shock, followed shortly afterwards by loss of flesh, first gradual, then becoming rapid, and in three months, when seen, he had lost twenty-two pounds. He had a nasty cough, with profuse bronchial discharge, looked very ill and thin.

No. 2 case had lost seven pounds, and was uncertain as to the length of time took. Patient suffered from slight consolidation of the lung, cough and discharge from chest.

No. 3 case had lost five pounds, was suffering from atonic dyspepsia, with flatus and constipation, and feeling weak.

No. 4 case had lost five pounds in five months, nutrition faulty, weak digestion, poor appetite.

The treatment of these cases was by Angier's Petroleum Emulsion, a teaspoonful increased to two teaspoonfuls after food, dietetic directions—and first relief of constipation by a gentle laxative; the results are here appended.

A Gain of 25 Pounds in Weight.

No. 1 case showed improvement from the beginning, and after a period of two months and a half had regained his original weight, eleven stone, seven pounds (one hundred and sixty-one pounds). Towards

the end of August his weight had increased increased to eleven stone, ten pounds, three pounds in excess of his original weight or a total gain of twenty-five pounds in five months. Bronchial catarrh had almost disappeared. During his treatment the patient mentioned to me that he saw films of Petroleum on his urine, and there was no difficulty, on evaporating some of his water in getting quite an appreciable quantity of petroleum from it.

No. 2 case also had made good progress and gained five pounds in weight in two months. Lung clearer and health better.

No. 3 case has slowly gained two pounds in three months, flatulence being considerably better, and constipation also better (a chronic case).

Case No. 4 has gained three and a half pounds in two months and with relief from all symptoms.

These results corroborate those reported by Dr. William Duffield Robinson (Medical News, July 14, 1900) who treated a large series of cases by Petroleum Emulsion. This authority states:

"It can be assuredly asserted that the effect of these Petroleum products is decided, and is far more that a simple intestinal lubricant. In over fifty selected cases where nutrition, digestion and body weight were impaired, and the purest oil administered in one or two dram doses four times a day, for periods of from three to six months, there was in every instance increase in weight and improvement in health, strength, and feeling of well being.

The gain in weight was five and a quarter to twenty-three and a half pounds. There was no other change in living conditions or medication which might have caused these improvements. It gave no discomfort in any instance."

From the experiments herewith recorded, the following conclusions concerning the physiologic and therapeutic action of Petroleum Emulsion may be adduced:

1. Inhibitory to the growth of putrefactive and pathogenic bacteria such as met with in the alimentary canal, while it does not inhibit or interfere with peptic or pancreatic digestion.

2. And therefore is an agent for relieving flatulence by preventing fermentation in such conditions of the bowel; in fact it acts the part of an intestinal antiseptic.

3. By its action in stimulating peristalsis, increasing diffusibility of intestinal contents, it not only increases nutrition and weight, but helps the natural movements of the bowels, by its lubricating power relieves constipation, and favors the elimination of noxious and toxic products from the system.

As to its weight-increasing action, there can be no doubt of that in face of the results of the experiments recorded. There is but one way to increase weight by whatever means employed, i. e., an increased flow or absorption of digested weight giving material such as peptones, chyle, etc. and particularly the former.

1. The weight gained under its influence is much greater in proportion than it or any other oil could afford, even if digested and absorbed.

2. Petroleum is perfectly incombinable chemically, and indigestible, but the result of the experiments in this direction at once shows that though this be the case, yet when the Emulsion is mixed with digested food material, the effect is very different. Its action then is to cause an increased flow of this digested assimilably material (which is weight giving) through the portal system to the blood and tissues in a given time, which being deposited each day leads to accumulation of weight in the tissues of the body. This daily gain added up at the end of many days represents the increase of weight so often recorded form its action; of course, under these circumstances the rate of elimination of the body waste is supposed to be fairly constant. It will also follow that the greater the rate of elimination from the body, the slower will be the increase of weight under the influence of the Emulsion.

Appropriations for Charitable Purposes.

The annual meeting of the Charity Organization Society of New York was held on November 16th. The report of the council showed that the appropriations for private hospitals and other institutions in the city budget for 1901 is $2,786,011, or $71,730 less than for 1900. The most urgent needs of the city in the line of charity were given as additional day nurseries, more diet kitchens, increased provision for aged people, hospitals for consumptives, and active volunteer workers. Among the speakers were Dr. John H. Pryor, of Buffalo, Commissioner of Charities Keller, and Controller Coler. Mr. Keller spoke of the urgent need of a new city hospital for Harlem, and said that he had applied to the Board of Estimate and Apportionment for an appropriation to erect the proposed buildings in a more central location than the present inadequate structure. Mr. Coler said that he could promise the commissioner at least one vote both for the Harlem Hospital and consumptives.—*Boston Med. and Surg. Jour.*

THE

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In such journals we look to see the publication of a paper which was read in June of the previous year. This is the great draw-back of an official organ publishing the papers of a Society. A meeting is held, say in June, 1901, and the papers read are strung out in small doses until June, 1902. The Journal of the American Medical Association, than which there is no better journal in the country, suffers in its original department from this same cause. Papers nearly a year old are published as current medical literature. In a year's time the good has found its place and the bad is forgotten.

We hope this new venture will in some way leave out the warmed-over literature of the previous year. The first number is well printed, though it is smaller than the ordinary New York weekly, and has only three original articles. The price to those not members of the Association is $3.00 a year.

THE PHILADELPHIA MEDICAL JOURNAL.

This well-known journal has lost its well-known editor. The stockholders seem to think they can get along without Dr. Gould after he has shown them how an independent journal should be run. It is said that in the three years of its existence this journal has piled up a debt of $30,000, and it seems that the owners felt that the editor was responsible for this lack of business management. Dr. Gould has worked up a subscription list of 12,000, and if the business management had kept pace with the editorial end of the load all would have been well. As an editor Dr. Gould is without a rival and if he occasionally dips his pen in acid instead of ink it is all for the good of the profession at large. An occasional roast helps things along and serves to keep up the excitement of everyday life. But Dr. Gould was too independent for the publishers and so he had to go. Newspaper journalism has been run down at the heel for some time, and it is becoming harder and harder for the medical journal editor to have an honest thought that can in any way affect the advertising pages. The ideal journal should be owned and edited by an active practitioner, but an active practitioner has neither the time nor the money to run an ideal journal, and so we fear that our ideal must remain a hope of the future as it has been a disappointment in the past.

Dr. Gould was never meant for anything else but an editor and he will soon have ready for the mails a new journal which will be a credit to the profession. It will be entirely independent of any outside control and the editorial columns will be worth twice the subscription price.

A HEREDITARY FABLE.

Two boys were born in the same ward of a great city. The home of one fronted on the boulevard, while the house of the other overlooked a six-foot alley. One of the boys was christened Augustus Van Horn, the other answered to the name of Babe. Both were descended from Adam, but were not brothers in the ordinary sense of the word. The father of Augustus worked the ward for the Party in Power, while Babe's Daddy run a woodyard in the suburbs.

Both boys had a tuberculous history, and early in his life Augustus was encouraged to eat plenty of meat, butter and cream, so that at the time of puberty he could not bear the smell of a milk wagon.

Babe was raised up to shoot craps with the Dagoes who bought wood from his daddy and did not know a porterhouse steak from a box of silver polish.

Augustus was treated by a large doctor in a furtrimmed overcoat who gave him horse serum with a gold-mounted hypodermic. Babe was looked after by the city physician who gave him some pink pills left in his office by a drug drummer. At the age of 22 Augustus was gathered to his fathers and there were several floral designs at the funeral that cost $16.00.

When 18 years old Babe got a job in a brick-yard at $1.00 a day. Five years later

he weighed 200 and bought furniture on the installment plan out of a $12.00 a week salary. At present he is 46 years old, figures on the cost of new buildings with a stub pencil, (he has never been known to underestimate,) and sings bass in a Presbyterian chapel.

The moral is that you can step on the worm so hard that it has no chance to turn.

CARBOLIC ACID GANGRENE.

Carbolic acid is a very useful antiseptic and its use is indicated in a number of conditions, but we should be very careful in applying it to the fingers or toes, as gangrene can be induced very easily. Even in weak solutions it should not be kept in contact with the extremities for any length of time. As a wash it can be used in any reasonable strength with the best results, but if applied on poultices or compresses it will cause serious injury in a few hours. To illustrate, a nurse in a large hospital got an infected wound of the ring finger, and knowing the germicidal powers of carbolic acid she applied a moist compress of a 5 per cent. solution and left it on over night. The infection disappeared but in its stead a destructive inflammation was set up involving the entire finger which was only saved from amputation by the most painstaking care and attention.

Harrington, of the Massachusetts General Hospital, has collected 132 cases of gangrene from dilute solutions of the acid and he states that the gangrene is not from compression but is due simply to the destructive action of the acid upon the cellular elements of the tissues. For continuous application to an infected area or inflamed part carbolic acid solution should never be used. In such cases the bichloride is preferable, though some care must be exercised if the wound is large or contains any pockets where the fluid may be retained and absorbed.

THE METRIC SYSTEM.

Our legislators at Washington seem to look on the metric system of weights and measures with a great deal of favor and it is not unlikely that in the near future we shall have a law in regard to the matter. The present method of doing things is decidedly out of date and it forms a striking contrast to the progress made in all other departments during the past one hundred years.

England and America have kept the old style in such constant use that we have become accustomed to pints and quarts, grains and drachms, but there can be no reasonable doubt that the metric system is more exact and scientific, easier to learn and easier to remember.

At first the change will be bothersome to a number of people who for many years have thought out their morning dram or daily dose of morphine.

To those of us who have learned the doses of drugs in the old system it will be hard but only for a short time. After writing a few prescriptions in the new system we will never want to go back to the old. We have been doing very well with an antiquated system with its drachm and fluid drachm, its pounds Troy and Averdupois, but we can do much better with a system having a single definite standard, in divisions or multiples of which all values are written.

Science has already appropriated to its use this system and medicine should be sufficiently progressive to follow in the lead. Figures are so much better than signs, as exactness is better than indefiniteness. Is it not a wonder that the drachm and ounce signs are not more frequently confounded? Drops and minims are confusing to the mind that would be certain, and it is high time for a change to the more exact and scientific metric system.

EPSOM SALTS.

We all know the action of salts when taken internally in sufficient doses but perhaps some are ignorant of the effects of a solution applied locally. Just lately a number of writers recommend the solution applied locally in inflammation of any kind. A cloth wrung out in a saturated solution and applied to a sprain or swollen joint of any kind will ease the pain, relieve the swelling and diminish the amount of inflammation. Old ulcers of the leg are greatly benefitted by the solution as a moist dressing. Healing is hastened and the reparative process is greatly stimulated. Boils and carbuncles are also favorably affected by hot compresses dipped in the solution but just how much depends upon the salts and how much on the moist heat may be in doubt. Skin eruptions of various kinds, especially if attended with much itching and irritation, are successfully treated in the same way.

We all like to use something made in Germany when we treat a patient and so many of our common but valuable remedies are neglected. The action of salts in inflammation of the intestinal tract is oftentimes magical as in the early stages of dysentery and perhaps its action upon the external skin is just as marked in certain conditions.

Among the every day remedies we attribute all the good effect to the most marked physiological action, as in the case of salts we think of it only as a saline cathartic and if it has any good effect we say it is due to the purgation. In many cases this is the whole truth perhaps, but in others in is only half the truth and there is some peculiar local action which is only obscured by the more prominent result and which is very important in the cure. If salts can so quickly restore the normal secretion of a diseased mucosa may it not have a good effect upon the inflammatory diseases of the skin? There will be no harm in trying it and we may find a valuable agent for local use in this very common house-hold remedy.

APPALACHIAN NATIONAL PARK.

We are glad to see that progress has been made toward the establishment of a national park in the Southern Appalachian mountain Region. President McKinley in his letter to the Senate and House transmitting the report of the secretary of Agriculture recommends a favorable consideration of the matter. The first investigation was very complete and includes a study of the character and distribution of the species of timber trees, the density and value of forest growth, the extent to which the timber has been cut or damaged by fire, the size and nature of the present holdings, the prices at which these forest lands can now be purchased, and the general and special conditions that affect the prosecution of conservative forestry on a large scale.

The hydrographic survey of the region, conducted by the United State geological survey, includes a general study of its topographic features; of the relation of the soils, forest cover and rainfall; of the quantity of water flowing out of it through the various streams during different seasons, and of the influence exerted on the regularity of this flow by forest clearings. More than 750 stream measurements have already been made, and much additional data of special value has been secured.

In speaking of this region the Secntary of Agriculture says that it contains within the forest covered areas no large settlements or large mining operations which would interfere with the management of such a forest reserve, and yet there is a sufficient population for the working and protection of the forests. Large lumber companies are rapidly invading the region, and the early destruction of the more valuable timber is imminent. Lands in this region suitable for such a forest reserve are now generally held in large bodies of from 50,000 to 100,000 acres, and they can be purchased at prices ranging from $2 to $5 per acre. It is probably that the average price would not exceed $3 per acre. In explanation of the widespread and urgent demand for the establishment in this southern Appalachian region of a national park or forest reserves, it may be added that it contains the highest and largest mountain masses and perhaps the wildest and most picturesque scenery east of the Mississippi river; that it is a region of perfect healthfulness, already largely used as a health resort both summer and winter, and that it lies within little more than a day's travel of the larger portion of the population of this country.

The rapid consumption of our timber supplies, the extensive destruction of our forests by fire, and the resulting increase in the irregularity of the flow of water in important streams have served to develop among the people of this country an interest in forest problems which is one of the marked features of the close of the century. In response to this growing intrest the government has set aside in the western forest reserves an area of more than 70,000 square miles. There is not a single government forest reserved in the east.

Senator Pritchard has introduced a bill appropriating $5,000,000 for the purchase of the land within the states of Virginia, N. C., S.C., Ga., Ala., and Tenn. A similar bill has been introduced in the House by Representative Pearson. The preliminary examination of the reasons for the establishment of the park has been very satisfactory and it does seem that all reason and argument are in favor of its fulfillment.

THE DOCTRINE OF OD.

This is a day of strange things and stranger explanations. We have been puzzled over many things, but fortunately for our peace of mind we have found the doctrine of Od and with it we will now explain any thing from why a woman has hysterics to the reason people have cold feet.

We are indebted to the Homœopathic Recorder for a complete elucidation of this subject.

The word "Od" is derived from the Sanskrit, and signifies breath, vapor, an ascending flame, something floating, allied to light, warmth, magnetism and electricity. Od is a factor of vital force, is combined with every molecular motion, and is especially perceived where there is any friction (in potentizing).

An excess of positive passive od is dis-

ease, and excess of negative-active od is health. Thence it results that disease is a disturbance of the odic equilibrium in favor of positive od. The sun is negatively odic, the moon positively, all the openings of the body are positive (cfr. the frictional sitbaths of Kuehne). The od light or the radiation of od can only be perceived by sensitive persons in perfect darkness.

Why must the feet be kept warm? Answer: The feet are positively odic (the right foot more than the left). When the skin becomes cold there is a retrocession of the radiation of od, and thence an accumulation of substances positively odic in the morbid parts. Other organs take up the accumulating od (local diseases), and so long as the feet remain cold the ailments do not cease.

The *nervous sympathicus* is positively odic and must, therefore, be protected; ice must not be applied either to the abdomen or to the head. Cold ablutions quickly performed increase the radiation of od.

Warmth is positive, coid is negative The head should, therefore, be kept cool. Perspiration of the feet shows a congestion of positive od, but an endeavor to excrete it. The ill effects of the suppression of such perspiration is not an idle tale.

Alcohol in its primary effect increases the radiation of od, but its secondary effect is to cause this radiation to sink below the normal. The effect of alcohol, therefore, amounts to a loan effected on the development of power on the following day. It is wasting to-day and want to-morrow.

Carbonic acid in its formation strongly increases the development of od. Therefore, champagne should be taken in typhoid fever only in the stage where there is subnormal temperature.

Instead of giving pink pills to pale people why not carry around a jug of negative-active od and let the patient take a swig whenever he feels badly. The only uneasiness we feel in the matter is that we fear that our *homos* are infringing on a patent right of the Electropoise company who have a cinch on the equilibrium business.

THE COCAINE HABIT.

The average American is hard to beat when it comes to the roll call of bad habits. Other nations may excel in one particular thing but the pushing citixen of the United States is a specialist in all.

Whisky, tobacco, morphine, chloral, ether and cocaine and the greatest of these is cocaine. A cocaine drunk is said to excell all other methods of dissipation in ecstasy of feeling and height of fancy and once started on the flowery path no Keely can turn aside. We notice that a few days ago in New York a condemned criminal impressed the attendants at his execution with his indifferent manner as they bound him in the electric chair; with a smile upon his face and a don't care in his voice he passed out into eternity. Later it was found that he had been drugged with cocaine a short time before his death. This powerful drug is now in daily use in a score of cities where it is sold without let or hindrance. We are very sorry to see that it is spreading to the smaller cities and towns. In Atlanta, we are told, a number of small drug stores live upon their daily sales of cocaine. The users are principally negroes but among them are to be found a number of white people, especially young men. These drug stores keep a room at the back of the house for the users after the fashion of an opium den and there the slaves to habit gather to go through all the stages of cocaine intoxication. One druggist running such a place in the outskirts of town gave as his excuse to a friend that he only wanted to make enough to move uptown and open a first class drug store. In New Orleans same action for repressing the sale of the drug is contemplated as the evil is becoming very apparent. Nashville has already passed an ordinance regulating the sale of the poison.

According to the Nashville Journal of Medicine and Surgery the ordinance is as follows:

Be it enacted by the Mayor and City Council of Nashville:

Section 1. That it shall hereafter be unlawful for any person, firm, or corporation within the limits of the City of Nashville to sell or give cocaine or any preparation containing cocaine to any person, in any quantity whatever, unless the person who is to use the same shall produce at the time of purchase a certificate or prescription from some licensed physician, on which prescription shall also be written the name of the party who is to use the cocaine, stating that such person needs cocaine for his or her physical welfare, and a separate certificate or prescription shall be produced for each purchase.

Each certificate or prescription shall bear the date on which it is issued, and no sale shall be made upon the certificate or prescription except on the date it is issued.

Sec. 2. It shall be the duty of the druggist selling said cocaine, as hereinabove authorized, to preserve each certificate or prescription thus received, first endorsing thereon the date it is filled. He shall also record in the Poison Book the date any cocaine is sold, to whom sold, the amount

sold and the name of the physician issuing the prescription therefor. Said druggist shall, whenever called upon by the City Board of Health, but at least four times a year, file with the said Board of Health, on blanks to be furnished by said board, a transcript of said Poison Book relating to sale of said cocaine. and said reports shall be kept on file in the office of said board.

Sec.3. This ordinance shall not apply to wholesale druggists who sell said drug to other druggists for retail, but it is intended that this ordinance shall apply only where the same is sold for consumption by the party purchasing same, or for whom it is purchased.

Sec. 4. A violation of this ordinance shall subject the offender to a fine of not less than $10 nor more than $20 for each offense.

Sec. 5. That this ordinance shall take effect from and after its passage, the welfare of the city requiring it.

Approved December 10, 1900.

Attest: J. M. Head, Mayor.

J. P. Byrne, Recorder.

Such an ordinance should he in force in every city in the land and while it puts some extra work on the druggist it protects the people from some of the evils of this terrible habit.

THE PASSING OF CANCER.

We are very glad to announce that at last a cure has been found for malignant growth. Men have staid up at night hunting for a remedy that would even temporarily arrest the progress of these hopeless cases and yet a simple cure has been discovered seemingly without an effort. We are very proud that this cure has not been sensationally reported to the secular press but has been carefully kept in hiding until the time was ripe for its publication in the regular way. It is a great satisfaction to know that the remedies are efficacious in the most abandoned cases after surgery has marred the form and destroyed the members, when the lymphatics are swollen with poison and the patient is feverish with sepsis, when all hope has been abandoned, even then the disease can be cured as easily as swallowing a raw oyster. Recurrences were beginning to chill the heart of surgery and Coley's toxines were not selling by the barrel and so it was high time that something was done. Money has been spent freely in all civilized countries, and men noted for their intelligence have spent their lives in the quest of a remedy. These investigations will all now be stopped and these laboratories will all now be closed. This discovery is very modestly announced by Timothy Field Allen in the Homœopathic Recorder for January. The first part of his uame suggest a country lane, but we can vouch for the fact that he is no hayseed. In his bashfulness he only reports two cases, but we feel sure that by this time he has 200,000 on his "call and cure" book, and will have as many more as soon as a few new cases develop. The first case was sarcoma in a Spanish lady of good birth, owning large estates in Cuba, who had had any number of operations performed, (the exact number is not stated,) to no purpose but rather grew worse. At this time she landed in the clover patch and he cured her in a few days with gelsemium in broken doses. The sixth centesimal dilution was used, (very cautiously) and by the third day the patient began to get well. The malignant growth dried up and dropped off and three years after she is spending the winter on her estates in Cuba. The second case was cancer of the tongue in a distinguished lawyer, no estates mentioned, but we suppose he managed several, who was engaged to be married, and it was a case of death or marriage as he could not stand the strain of both. Some of the most distinguished surgeons in the country told him that only an operation offered any hope of relief, but he refused to believe them and wisely listened to our friend with the odoriferous name. The patient was given phosphorus in the sixth centesimal dilution in liquid, a few pellets being moistened in this solution and one given every four hours. It acted kindly from the first day, as it was such a kindly dose. The malignant look of the tumor slowly decreased, his general health improved, and in one year he was not only alive but able to get married and has since entirely recovered. So then we have it in black and white, gelsemium and phosphorus will simply knock the life out of a malignant growth, and it would be well to clip this out and paste it in your hat. Some people may say that such remedies in such infinitesimal doses could have no effect one way or the other and that the patients got well themselves, but such people are unreasonable, being lacking in faith and imagination. It takes a strong imagination to be a homœopath and people who have none should not criticise their plan of treatment.

For cancer use gelsemium or phosphorus, if there is periodical fever give gelsemium, if there is much mental depression prescribe phosphorus, if the patient's mother-in-law has an ingrown toenail something else might be indicated, just what will be announced later on. Be very careful not to give an overdose of the sixth centesimal dilution.

If poisoning should occur from carelessness telephone T. F. A. at once.

How great a limp is caused by a little hurt—until damages are awarded.

BOOK REVIEWS

A System of Practical Therapeutics. By Eminent American and Foreign Authorities. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics, Jefferson Medical College; Physician to Jefferson College Hospital, etc., Philadelphia. New (2d) edition, thoroughly revised. In three handsome octavo volumes, containing 2793 pages, with 427 engravings, and 26 full-page colored plates. Per volume, cloth, $5.00, net; leather, $6.00, net; half morocco, $7.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York. 1900

The first edition of this work was issued some ten years ago and met with a very hearty welcome from the profession. This edition is based upon the first, but a great improvement has taken place in this department of medicine and the work has been improved in proportion. Nearly one-half of the articles are entirely new and the rest of the material has undergone a most complete revision. The scope of the work has been enlarged and now covers the entire field of medical and surgical therapeutics. Among the subjects presented in a new way may be mentioned Diabetes Mellitus, Diphtheria and Spasmodic Croup, Scarlet Fever, Measles, Rothelu and Varicella, Typhoid Fever, Croupous and Catarrhal Pneumonia, Dengue, Influenza, Acute Rheumatism and Tonsillitis, Mumps, Diseases of the Liver and Gall Bladder, Tuberculosis, Rickets, Scurvy, the Disease of Pregnancy, Parturition and the Puerperium, Fractures and Dislocations, Antisepsis and Asepsis, Minor Surgery and Bandaging, Disinfection, Mineral Springs, Swedish Movements and Massage. Among the contributors to the first volume are H. C. Wood, J. P. Remington, J. R. Mitchell, A. D. Rockwell, Simon Baruch, W. M. L. Coplin, James Tyson, Edward Martin, and other well-known writers. As an aid to the general practioner or the specialist this work is invaluable. It is a library in itself, in fact it is better, as it has the practical and useful parts of many libraries and much experience, arranged in convenient form for handy reference. The mechanical part is done in Lea Brothers' best style.

A Text Book on Practical Obstetrics. By Egbert H. Grandin, M.D.; Gynecologist to the Columbus Hospital; Consulting Gynecologist to the French Hospital; Late Consulting Obstetric and Obstetric Surgeon of the New York Maternity Hospital; Late Obstetrician of the New York Infant Asylum; Fellow of the American Gynecological Society, of the New York Academy of Medicine of the New York Obstetrical Society, etc., etc.. with the Collaboration of George W. Jarman, M.D.; Gynecologist to the Cancer Hospital; Instructor in Gynecology in the Medical Department of the Columbia University; Late Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynecological Society, of the New York Academy of Medicine, of the New York Obstetrical Society, etc. Third Edition, Revised and Enlarged. Illustrated, with Fifty-two Full-Page Photographic Plates and One Hundred and Five Illustrations in the Text; 6½x9½ inches. Pages xiv–511. Extra cloth. $4.00, net; Sheep, $4.75. F. A. Davis Company, publishers, 1914–16 Cherry St., Philadelphia.

This very practical work has been enlarged by the adition of a chapter dealing with the anatomy of the female organs of generation and with embryology. As a guide to practice this book will be found useful every day. The illustrations present the text in a most graphic manner and many of the plates are from nature. It is very conveniently divided into four parts—Pregnancy, Labor, the Puerperal State, and Obstetric Surgery. In the last division we have a very practical consideration of obstetric asepsis and antisepsis, dystocia and its termination, artificial abortion and induction of premature labor, forceps, version, symphysiotomy, cesarian section, embryotomy, surgery of the puerperium and ectopic gestation.

With this book at his side, the practitioner will be prepared for any case of obstetrics that may turn up. The mechanical part of the work is first-class in every respect.

Diseases of the Heart; Their Diagnosis and Treatment. By Albert Abrams, A.M., M.D., San Francisco; Consulting Physician for Diseases of the Chest, Mt. Zion Hospital and the French Hospital. Illustrated. Pages, 472. Price. $1.00, net. Chicago. G. P. Engelhard & Co. 1900.

The readers of the Medical Standard have followed with much pleasure the articles on the Heart, by Dr. Abrams and they will be very glad to know that he has written a book on this subject. As there may be a few who do not read the Standard we want to recommend this book to them. It is very easy to read and one may gather up a number of practical points from a careful perusal of this work.

The publishers have shown their ability to get out an elegant book as well as a first-class journal. Anyone who is making any pretense of treating diseases of the heart should send for this book and keep it on his desk.

Students' Edition, a Practical Treatise of Materia Medica and Therapeutics, with special reference to the Clinical Application of Drugs. By John V. Shoemaker, M.D., L.L. D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College, of Philadelphia; Physician to the Medico-Chirurgical Hospital, Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association; Follow of the Medical Society of London, etc., etc. Fifth Edition; Thoroughly Revised. 6 1-4x9 1-2 inches. Pages vii–770. Extra Cloth, $4.00, net; Sheep, $4.75, net. F. A. Davis Company, Publishers, 1914–16 Cherry St., Philadelphia.

The author of this standard work on Materia Medica and Therapeutics has gotten out two editions, one for students, the other for practitioners. In this the Students' Edition nothing is included beyond the description of those drugs and preparations which are official in the pharmacopœia of the United States and Great Britian together with some of their chemical modifications. The metric system of weights and measures are used throughout with their equivalent in the English system. As it is only a matter of time when this system will be in universal use it is important that the student should become familiar with it early in his career. As a teacher, the author has had great experience and is able to present the important part of the subject without a waste of words.

This work includes all the newer remedies and is to be heartily recommended.

Physical Diagnosis in Obstetrics. A guide in antepartum, partum and post-partum examinations for the use of physicians and undergraduates, by Edward A. Ayers, M.D.; Professor of Obstetrics in the New York Polyclinic; attending Physician to the Mothers' and Babies' Hospital, with illustrations. Cloth, 283 pages. Price $2.00. E. B. Treat & Co., 241-243 west 23rd St., New York. 1900.

The author of this work has had 18 years' experience in teaching clinical obstetrics to physicians and undergraduates and he is therefore well qualified to write a practical book on this subject.

It gives in a clear style the clinical side of obstetrics as he has been accustomed to pursue it with his classes in hospital and dispensary work. As a bedside guide it will be found very useful to the physician and if he will follow the directions laid down he can learn a great deal from his own practice.

This book clearly shows the remarkable improvement in obstetric work following the introduction of abdominal palpation and pelvimetry, enabling us to establish a complete diagnosis before labor and to prevent many abnormalities during birth. A number of well selected illustrations and diagrams enhance the value of the text.

The mechanical part of the work is a "treat."

Urinary Diagnosis and Treatment By J. W. Wainwright, M.D., Member of the American Medical Association, New York State Medical Association, New York County Medical Association, etc. Illustrated with numerous engravings and colored plates. Pages, 140. Price, $1 00 net. Chicago. G P. Engelhard & Co. 1900.

The handiest work on the subject we have seen in some time. The author gives the simplest methods of chemical and microscopical examinations with the latest deductions and theories concerning the general routine treatment of the conditions found, the very thing the busy general practitioner wants. The book is very neatly printed and bound and appeals to the eye as well as to the understanding. A number of elegant colored plates serve to assist the practitioner in his examination.

As an everyday working guide the book should have a large sale. No buyer will ever regret the expenditure.

Introduction to the Study of Medicine, by G. H. Roger, Professor Extraordinary in the Faculty of Medicine of Paris; Member of the Biological Society; Physician to the Hospital of Porte d'Aubervilliers, Authorized translation, by M. S. Gabriel, M.D., with additions by the Author. Cloth, 545 pages, D. Appleton & Co., New York. 1900.

This is a good book to read before commencing the study of medicine. It gives in outline the extent and depth of the subject and cannot fail to impress one with a sense of the greatness of the task he has undertaken. Medicine has advanced with such rapid strides that the border lines are hard to trace and for those who would master the science it seems an almost impossible work. In the University of Paris a course of lectures has been instituted for those entering upon the laborious study of the medi-

cal sciences, and to Professor Roger this course has been intrusted.

He gives us a work worthy of the occasion and the practitioner as well as the student will read it with pleasure and profit.

He discovers the object of medicine, tells how it may be studied, explains how an individual becomes sick with a consideration of modified causes leading up to pathological physiology, pathological anatomy and semieology. The chapters on Examination of the sick should be carefully studied by all those who wish to be exact in their diagnosis. He shows that a scientific examination can be made by simple means within the reach of all.

The mechanical part is gotten up in first class style.

Physicians' Manual of Therapeutics, Referring especially to the Products of the Pharmaceutical and Biological Laboratories of Parke, Davis & Co.; flexible Morocco; 12 mo; pp. 526; Detroit. 1900.

This book is worthy of the enterprising firm whose name it bears. As a rule it is not often that we have a chance to get something for nothing and the opportunity to get this valuable manual should be taken advantage of by every physician in the country.

The first of the book is taken up with many useful hints on the prophylaxis and treatment of diseases in alphabetical order. The body of the work is given to the consideration of materia medica.

The book is handsomely bound in leather and will be very useful in many ways.

It will be sent to any physician on application to Messrs. Park, Davis & Co.

Panama and the Sierras. A Doctor's Wander Days. By G. Frank Lydston, M.D. Cloth, 283 pages, Profusely illustrated from the Author's original photographs, $1.75, prepaid. The Riverton Press, Chicago. 1900.

The "stay at homes" will find a genuine pleasure in reading this book and even those who have "drunk of the ambrosia of change and eaten of the lotus of rest" will find a thrilling interest in these sketches. Dr. Lydston is well known as a writer on medical topics and he gives to the dryest subjects the freshness of a vigorous style. With a subject like this he is in his element and his description of travels in the most interesting part of the world makes a most fascinating book. The work is illustrated in lavish manner from photographs and the publishers deserve commendation for their part. For the overworked doctor there is nothing better than travel and a change of scene unless it be a careful reading of this book. We hope Dr. Lydston will not let his ink-stand go dry for a long time to come.

LITERARY NOTES.

THE FEBRUARY "NEW" LIPPINCOTT.—The Complete Novel of the month entitled "A Novel Complication," is by Edward S. Van Zile. This is a clever piece of humor founded on a case of mistaken identity. William F. Barton, an English capitalist, comes with his wife to America on a pleasure trip. His name on the register at the Hotel Waldorf is the signal for a rush of reporters and lion-hunters, who believe him to be William F. Barton, a writer of realistic fiction, whose reputation among the fair sex is world-wide. Almost before they comprehend the situation, the hitherto quiet man and woman are the central figures in a whirlpool of excitement. Fortunately, Mrs. Barton has literary aspirations and is familar with the books supposed to have been written by her husband so she comes to his rescue. Altogether, it is a lively tale, with just a touch of sentiment.

The series of College Tales begin in the January number is continued this month in a contribution by an alumnus of "dear old Penn." "Smith of Pennsylvania," by Francis Churchill Williams, is a splendid specimen of student, doubtless to be found in every college, but this particular "Smith" must make the "Pennsylvania" boys feel like shouting a triple "Hoo Ray!" The Penn-Harvard foot-ball game described at the close of the story is great.

"A Bloodless Vendetta," by Henry Wilton Thomas, author of "The Last Lady of Mulberry," is in the same vein as this volume. Unlike the Kentucky feuds, this one in Italian New York is jolly and clever and ends happily.

"Mrs. Gaylord's Cellar Party," by a writer who borrows three stars from the firmament for a pen-name, is a hit at present-day society whose cry is "Give me novelty, or give me death!"

Ellis Parker Butler contributes a local election story called "The Juniper-Street Episode." It shows that a tactful woman does not need the privilege of the ballot to elect her candidate to office.

Colonel Charles Pomeroy Button's paper on "Lincoln as an Antagonist" is full of meaty reminiscences by an old friendly-foe of the martyred President's. This is timely to the celebration of Lincoln's birthday, February 12th.

The second article on "Talks with Chinese women," by Lily Howard, is equally interesting with that published last month. We read much about high-class women in China, but Miss Howard elects to write about those in lowly life. This time she depicts the bright side of their lives.

So many stories are told about Barbara Frietchie's flag that the version entitled "True Barbara Frietchie," by Anne Fletcher, carries conviction with it.

Poems are contributed by Edwin L. Sabin and Sennie Betts Hartswick.

Of the fourteen articles in the February Forum, the one entitled "The Rehabilitation of the Democratic Party," by An ex-Democrat," will perhaps, attract the widest attention. It treats of the causes leading up to the present predicament of the Democratic party, and suggests certain principles for the future, calculated to conciliate the disaffected elements of the party. In his article, "Nationalization of the State Guards," Gen. T. M. Anderson advocates a judicious combination of our regular and volunteer establishments. Hon. William Dudley Foulke contributes an article entitled "The Spellbinders," a narrative of the trials of stump speakers in the heat of political campaigns, which is replete with humorous anecodotes. "The Lessons of the Election—A Rejoinder," by Willis J. Abbot, is a reply from a Democratic standpoint to Mr. Heath's article, "Lessons of the Campaign," published in the Forum for December. Mr. Kelly Miller, the eminent negro scholar, a leader of his race, writes about "The Negro and Education," "The Status of Porto Ricans, in Our Polity," by Stephen Pfeil, is a discussion of the vexatious question of the citizenship of the residents of our recently acquired possession, Porto Rico. Mr. James G. Whiteley, a leading authority on international law, has an article on "The Monroe Doctrine and the Hay-Pauncefote Treaty." "Should Woman's Education differ from Man's?" is a discussion of coeducation by no less an authority than Charles F. Thwing, President of Western Reserve University and Adelbert College. Mr. Walter Macarthur's article on "The American Trade-Unions and Compulsory arbitration," treats of the labor question, and the proposed innovation of compulsory arbitration. "The Dark in Literature," by Richard Burton, Professor of Literature, University of Minnesota, deals with the sombre, the brutal, the terrible—the abnormal elements of life—as reflected in masterpieces of poetry and the drama. Other articles are: "Four Legs and Two Legs," by Major Henry A. Greene; "The Anti-Scalping Bill," by Hugh T. Mathers; "Laws and Usages of War at Sea," by Capt. C. H. Stockton, U. S. N., and "Sheep and the Forest Reserves," by Chasles S. Newhall.

Scribner's Magazine—for February begins a new series of reminiscences of theatrical life—a form of article in which it has been peculiarly fortunate in the past, having published the recollections of Lester Wallack and Mrs. John Drew. The Stage Reminiscences of Mrs. Gilbert, which are here begun, are full of vivacity, incident, and entertaining recollections of great actors of the past half century. Mrs. Gilbert is eighty years of age and has been on the stage for more than seventy years of that time, beginning as a dancer when a mere child at Drury Lane. This instalment first gives some recollections of her childhood and then the narrative moves to America where Mrs. Gilbert and her husband emigrated in 1849. Her recollections of her experiences in Chicago, Milwaukee, St. Louis, and other western cities are very amusing, and give a vivid idea of the stock companies of half a century ago. It is remarkable that when Mrs. Gilbert first appeared in New York she came as a "western" actress from Cincinnati. These reminiscences, which will run through three numbers of the Magazine, are exact transcripts of the conversations with her friend Mrs. Charlotte M. Martin, who has been a most sympathetic editor. The abundant illustrations have been selected from the wonderful collection of Evert Jansen Wendell, and also from Mrs. Gilbert's own souvenirs.

"The Progress of the World" in the Review of Reviews for February includes in its survey of current history not only the passing of Queen Victoria and the coming to the throne of a new King of England and Emperor of India, but many other developments of the past month in national and international politics,—the return of Lord Roberts to England, Lord Kitchener's arduous campaign in persuit of De Wit, Prussian bicentenary celebrations, the great debate in the French Parliament on the regulation of the religious orders, the negotiations in China, Congressional reapportionment in the United States, the January elections of United States Senators the ship subsidy and river and harbor bills, army reorganization, the West Point overhauling, the disposition of the French rights

off the shores of Newfoundland, our negotiations with Denmark for the Danish West Indies, and the arguments in the Supreme Court on Porto Rican citizenship. This bare enumeration of topics gives but an imperfect notion of the Review's editorial range and timeliness. The contributed articles for February will sustain the magazine's reputation for alertness.

The February Everybody's Magazine is a first rate number full of articles with life and vim in them. In every contribution there is spirit and individuality. The stories are brisk and stirring, the descriptive articles notably interesting and vivid. Nothing better in its way, has been written than Maximilian Foster's "The Conqueror"—which tells in picturesque style of life of a bull caribou in the Northern woods. The "Curiosities of Courage" is a subject that appeals naturally to Richard Harding Davis, who narrates a variety of entertaining stories illustrating various phases of the virtue, all of which make capital reading. The "Making of a Country Home" by J. P. Mowbray, is a charming opening to a series of articles which will have a wide circle of readers. There is a "Yawp" by W. J. Lampton, a virile impression of the fight at "Bloody Angle" by Carl Hovey, together with stories by Adachia Kinnosuke, Eugene P. Lyle, Jr. Rapheal Sabatini. and the continuation of the stirring novel "Jocelyn Cheshire" by Sara Beaumont Kennedy.

Masters of Men—The Saturday Evening Post announces for early publication a twelve-part serial story of love and adventure by Morgan Robertson. Masters of Men is a powerful tale of the new Navy.

The central figures in the story are a rich orphan, who has entered the navy as an apprentice, and a young ensign, fresh from the Naval Academy. The author leads his two heroes through a maze of adventures by land and sea.

This romance may fairly be called the best work of the best writer of sea stories in the country.

ABSTRACTS of the One Hundred Leading Articles of the Month.

Albuminuria and Eclampsia.

Chas. E. Paddock, in Obstetrics for January, has an article on the renal aspects of pregnancy and in regard to albuminuria and eclampsia he concludes:

That the etiology and pathology are unknown.

That the kidney shows the most constant lesion, but may be entirely healthy.

That the majority of the cases are acute exacerbations of a chronic nephritis.

That the principal treatment is prophylactic

Bilharzia Hematobia.

According to the International Medical Magazine for January Pardhe.in the Indian Medical Record for Oct. 17, reports a case of hematuria in a Hindoo aged 30 who had been passing blood off and on for six months.

The passage of blood was only at the end of micturition. Almost the whole amount of urine passed out clear at first and without difficulty. No subjective symptoms except a slight sense of uneasiness toward the end of micturition while the blood was being passed out. No stoppage of flow, passing of gravel, history of renal colic or gonorrhea, etc. No rise of temperature, pain or tenderness in the urinary apparatus. On examining the urine microscopically there were found unmistakable ova of Bilharzia Hematobia in various stages of development. It is a well-known fact that this parasite does not live long in the urine. The specimen examined was the last passed, and consisted principally of blood, which might explain the fact of the ova and embryo having survived so long. As to the mode of entry, it was impossible to ascertain—alimentary canal, urethra or skin. Treatment was 15 minims of oil of turpentine and male fern with 5 minims of chloroform and mucilage of acacia.

Diabetes Mellitus.

James B. Herrick in the Journal of the American Medical Association for January 26, has an article on the diagnosis of diabetes mellitus. He says that while the crucial test is the examination of the urine for sugar and the determination of the question as to whether the glycosuria is transitory or not, still there are other symptoms of importance. The common symptoms are great thirst, weakness and emaciation in spite of an excessive appetite, subnormal temperature and polyuria. In many cases these classical signs are not present so we should be familiar with the rarer and more atypical manifestations of the disease. Among these on the part of the nervous system he mentions, polyneuritis, neuralgic pain in the legs with loss of patellar reflex and uncertain gait, trophic disturbances,

peripheral motor paralysis, cerebral palsies, headache and dizziness, errors of accommodation in the eye and furuncles in the external ear. Impotence and psychic disturbance are worthy of special note.

As regards the alimentary tract we have dry mouth, stomatitis, gingivitis, falling of teeth, dilatation of the stomach, constipation, in some cases vomiting and diarrhea, enlarged liver and sometimes bronzing of the skin. The skin is usually itchy with a tendency to local suppuration, eczema and dermatitis especially about the genitals, gangrene and perforating ulcer.

Arteriscelerosis is a common finding.

As regards the urine there is little of importance except the sugar. The sources of error in examination of the urine are three, error in the examination, the urine is not examined for sugar or the sugar is absent at the time of examination. He calls attention in closing to the importance not only of diagnosing the diabetes but of recognizing the variety of the disease.

While the classifications are all more or less artificial, they are yet valuable, and if we make no sharper distinction than between mild, moderately severe and severe types, our treatment will be far more rational and effectual and our prognosis far nearer the truth that if we make merely one large class including all cases of diabetes. Due consideration of the age, tendency to obesity, heredity and of organic disease of the pancreas or nervous system as an etiologic factor enables one to recognize the type. And of especial value is it to note the effect of withdrawal of carbohydrates. In many of the milder types, particularly in the obese adult, the sugar can be made quickly to disappear from the urine by proper diet, while in severer forms, in spite of most rigid diet, sugar persists. It is not always the amount of sugar that determines the severity of a given case; it is rather the amount in comparison with the amount of carbohydrates in the diet.

Diphtheria Antitoxin.

Henry F. Koester, in the Medical News for January 19th, gives some conclusions formed after six years experience with the antitoxin treatment of diphtheria. He says that antitoxin is a positive cure for diphtheria when employed in sufficient quantity and su fficiently early in the disease. Even when employed too late to produce its specific action, it cannot, under any circumstances be productive of harm. When used before the invasion of the disease it possesses a positive immunizing power which lasts about 30 days.

Bromides in Epilepsy.

K. Pierce Clark, in the Medical Record for January 12th, says that by a combination of diet, regular occupation, and personal hygiene, the bromides give the best results in treating idiopathic epilepsy.

The bromides singly or combined, still remain our chief sedative for the epileptic state—in the young epileptic, to secure a possible entire suppression of attacks and ultimate cure of the disease; in the adult, an amelioration of frequent paroxysms and comparative physical and mental comfort.

The bromides to be effective in chronic and long-standing cases must be given a large daily doses to suppress convulsions, from gr. ccc.–cd. if necessary. They should be given gradually to find the sedative level, at which level it is the physician's principal duty to maintain them with physical and mental comfort to his patient.

Hot and cold baths, high enemas, alimentary antisepsis, and massage are absolutely essential to successful bromide medication.

Bromine is a worthy substitute for the bromides in many cases in which the latter are contraindicated or cannot be given in high dosage.

Salt starvation or semi-salt starvation is a great adjuvant to the bromide treatment, and should be thoroughly tried in all cases in which bromides or bromine are apparently contraindicated before they are discarded.

Disappointment of Surgery.

According to the New York Medical Journal for January 5th, D. Arcy Powers in the Lancet for December 22d, writes on some of the disappointments of surgery. His article concerns itself with the minor unsatisfactory results of operations—the surgical disappointments, which are due to two main causes—either the surgeon promises too much, or his fear of doing harm prevents his doing enough. A frequent disappointment following circumcision is that the cut surface of the prepuce adheres to the glans; this may be avoided by frequent retraction, or by passing the glans through a slit in the pressing. In harelip operatioas, there is often faulty apposition of the two red edges of the lip; to avoid this, the first suture should be passed at that point. The recurrence of adenoids is a fertile source of disappointment to parents. The operation may be perfectly successful; but the predisposition remains. So that too much should not be promised as a result of removal. The greatest disappointments occur in connection with abdominal operations, especially in those carried out upon

the kidney. The formation of a fistula, where it occurs immediately after an operation, can hardly be called a disappointment; but they often occur at a period remote from the operation, when the wound has healed soundly. The trouble is usually with the ligatures used. Disastrous disappointments are often met with in operations for internal strangulation of the bowel, hernia and intussusception. Operations upon the vermiform appendix afford so many surgical disappointments that it is never wise to promise too much beforehand. Mental disturbances often follow operations, and the author cites several instances. Injuries to bones are followed by the most disastrous, as well as the best known surgical disappointments: Colles's or Pott's fracture, non-union, the formation of a conical stump —in all these, the results may be annoying and disastrous to a surgeon's reputation. Injuries of nerves and dislocations are perennial sources of disappointment.

Cocainism.

The cocaine habit is spreading throughout the country and it is said to be more difficult to manage than the morphine habit.

T. D. Crothers, in the Alkaloidal Clinic for January has an article on the cocaine habit for which he gives the following treatment: Complete withdrawal of the drug at once.

Vegetable narcotics may be used temporarily as valerian, hyoscyamus. Chloral, alcoholics and opium are unsafe. Bromides may be used in large doses for a short time. For the insomnia foods and baths with complete change and conditions of life. The patient should be watched a long time to prevent relapse.

He condemns the indiscriminate sale of cocaine in drugstores, and its reckless use by physicians.

The law should restrict its sale as that of a dangerous poison. Its use in proprietary medicines is a source of greater peril than that of any form of opium.

Ectopic Gestation.

According to Augustin Goelet in the International Journal of Surgery for January, the character of the surgical procedure in ectopic operation depends upon the condition present. If the tube is not ruptured it is safer to operate without delay as soon as the diagnosis is made, since rupture with fatal hemorrhage may occur at any moment. If the tube has ruptured and active bleeding going on, the abdomen should be opened at once and the hemorrhage arrested. If the tube ruptures between the folds of the broad ligament the hemorrhage that can occur is limited and it will cease spontaneously, no immediate operative procedure is therefore demanded. If rupture has occurred with hemorrhage into the peritoneal cavity that has ceased spontaneously it is wiser to keep the patient quiet in bed for two or three weeks until the ruptured vessels have become sealed when the clot will be firm and walled off from the general peritoneal cavity by fibrous exudation surrounding which makes it practically extraperitoneal, it can then be treated by vaginal evacuation and drainage. In all these cases the incision in the vagina must be made large enough to extract the betus which sometimes continues to grow after its escape from the tube.

If the fetus has continued to develop in the peritoneal cavity and has gone nearly to term, it may be removed through abdominal incision but the method of procedure will depend on whether the fetus is dead or alive.

If alive deep ligatures should be passed around the attachment of the placenta before separating it, unless it is attached to the bowels, in such cases tie the cord off short and pack gauze around the placenta and await spontaneous separation. If dead and the demand for an operation not urgent it is better to wait until the vessels are closed by thrombi.

In cases of abdominal pregnancy it is possible sometimes to preserve the life of the child if operation is not delayed too long.

The life of the child being in danger from false labor setting in or from absorption of the liquor amni which allows the fetus to be pressed onby the surrounding organs and structures.

Florida as a Winter Resort.

In the Medical News for January 20th, James K. Crook discusses Florida as a health resort. From a careful study of the subject he concludes that five classes of patients may properly be referred to Florida for the winter months.

1. Cases of recurring bronchitis or winter cough. These patients enjoy fairly good health during the summer months, but with the advent of the first raw days of the Fall they begin to have bronchial irritation, attended as a rule by a dry, irritable cough and occasional paroxysms of wheezing and dyspnea. These cases are not phthisical, but they are liable to develop more or less pulmonary emphysema with the progress of two or three winters, to the permanent impairment of the respiratory capacity. They are but slightly amenable to drug treat-

ment. A sojourn of two or three months in Florida during the depth of the northern winter usually results in material improvement, often in a permanent removal of the *materies morbi*.

2. A large and important class of cases, hereditary or otherwise, in which there is reason to apprehend the development of tuberculosis, even though no actual signs of the disease has set in.

3. A majority of cases of early phthisis prior to the formation of cavities. Patients showing great debility or a severe degree of anemia should not be sent to a southern climate, nor should those in whom acute manifestations are present. As in other localities nearer home, cases in which the well-known symptoms of pulmonary tuberculosis have become prominent are not welcomed everywhere on the peninsula, but the writer knows of no patient who has failed to find comfortable quarters.

4. Cases of so-called fibrous phthisis or chronic intestinal pneumonia. This form of pulmonary trouble progresses very slowly and is liable to extend over a long period of years. It is not cured by the climate of Florida, but almost without exception patients receive great benefit from a sojourn of several months in that region.

5. There is a very large valetudinarian class composed of old rheumatics, victims of subacute or chronic gout, asthmatics, and intractable cases of chronic rhinitis, pharyngitis, laryngitis, lumbago, neurasthenia, general debility, etc., who are vastly improved by a season amid the sunshine and flowers of the beautiful peninsula.

All patients from above the latitude of Baltimore in going to Florida should stop off at some intermediate point (as Charlotte) for two or three weeks to avoid the sudden change which in many cases is very depressing and should be avoided.

Fecal Impaction.

Samuel G. Gant, in the Postgraduate for January, gives the following differential diagnosis between fecal impaction and carcinoma of the intestine:

FECAL IMPACTION.

1. Single, large, firm and globular in shape; or numerous, small, hard and nodular.
2. Usually not covered by mucous membrane.
3. Occupies lumen of the bowels.
4. Of doughty consistence and indentable.
5. Not attached.
6. Movable.
7. Occurs at any age.
8. No cachexia.
9. Odorless.
10. Comes on suddenly.
11. No previous history of pain or hemorrhages.
12. Not accompanied by discharge of mucus or jelly-like stools.

CARCINOMA.

1. Two or more dense, rounded tumors.
2. Covered by a mucous membrane except when ulcerated.
3. Projects into the calibre of the intestine.
4. Hard and non-indentable.
5. Attached.
6. Non-movable or slightly so.
7. In middle life and old age.
8. Cachexia.
9. Offensive odor.
10. Slowly.
11. Pain always, hemorrhage frequently.
12. Free discharge of mucus and sometimes of jelly-like evacuations.

Gout.

In the Medical Record for January 25th, Alexander Haig discusses the causation, prevention and treatment of gout.

Regarding causation he says:

That gout is due to poisoning by flesh and tea and similar substances, which introduce uric acid into the body in very considerable quantities.

That the uric acid so introduced may not only remain in the body, but may prevent the excretion of the uric acid formed in the body,

That as a result the body becomes more or less saturated with uric acid, which may irritate its fibrous tissues (gout or rheumatism) or may obstruct its capillaries, causing high blood pressure and defective capillary circulation and their results, such as the great group of circulation diseases, the uric acid headache, epilepsy and mental disease, anæmia, Bright's disease, Raynaud's diseases, etc., all of them being mere results of the enormous influence which uric acid exerts on the circulation of the body by obstructing its capillaries.

That all these diseases, which have been called by so many names, fall into two groups: (a) the local group, and (b) the circulation group; of which the latter is by far the more extensive and important, so that what we used to call gout and rheumatism become almost insignificant by comparison.

In the prevention and treatment we have only two things to do: To cut off the poisons that have been the cause of the trouble so that introduction shall as far as possible cease. To provide for the elimination of

the poison already in the body. For the second he gives the iodides as iodide of sodium more or less aided by the cloride and bromide of ammonium and chloride of sodium which he calls sea-water mixture. A little mercury may be given them, iron being added to prevent salivation,

Intraperitoneal Rupture of the Bladder.

W. P. Blumer, in the British Medical Journal for December 22d, as quoted by the N. Y. Medical Journal for January 5th, reports a case of intraperitoneal rupture of the bladder, with an operation four days after the injury, from which the patient recovered. The patient was a man aged thirty-five years, who suddenly became giddy on the street and fell, striking his abdomen. All attempts at micturition were fruitless, and four days later he walked two miles to the infirmary. The abdomen was greatly distended, and absolutely dull over both flanks. On passing a soft catheter, 196 ounces of bloody urine were removed. Laparotomy was performed, and a vert cal tear on the posterior wall of the bladder was found. The abdominal cavity contained considerable urine. The rent was closed with continuous suture, the abdomen closed (a drainage tube being left in) and the patient made a gradual recovery. The interesting points are: (1) the length of time between the injury and the operation; (2) the large amount of fluid in the abdomen, causing comparatively little trouble; (3) that four days after the injury the patient walked over two miles; and (4) the absence of symptoms of peritonitis.

Koch's Report on Malaria.

According to the Journal of the American Medical Association for January 12th, Koch publishes in the Deu. Med. Woch. a summary of the results accomplished by his malaria expedition.

He relates that examination of the children is the best means to determine the presence and character of malarial infection in a place. In the peculiarly isolated aboriginal villages he visited in eastern Africa, he found it almost universal among the small children. A certain proportion succumb, but the remainder as they grow up seem to acquire a natural immunity by the fifth to tenth year and after that age develop into remarkably fine physique and health, even in the most intensely malarial localities. The children are never treated for malaria; quinin is never given them, and consequently the immunity attained can not be compared with other regions where the natural course of the disease and the process of immunization are interfered with by medicinal measures. He found among the islands of the Bismarck archipelago that some of the islands were entirely free from malaria while others had only one or all three forms. The immunity acquired in an island where only the quartan variety prevailed, for instance, did not protect against the tertian or tropical fever or vice versa. He is convinced that man and mosquitoes are the only hosts of the parasites, and that by curing the infected children and all, even the deceptive, latent cases in adults, malaria can be exterminated. He recommended 1 gm. quinin in solution, taken on a nearly empty stomach in the morning, every tenth and also eleventh day. If fever still persists, the dose can be increased to 1.5 gm., reducing the interval to one and two days. He warns that quinin is not absorbed unless the gastric reaction is acid.

Oxygen Treatment of So called Uric Acid Lesions.

A. C. Crofton, in the International Medical Magazine for January, recommends the inhalation of oxygen in uric acid troubles. He says that the results are good especially in the functional disturbances as headache, general lassitude or asthmatic seizures. In cases where organic changes have taken place the effect is not so striking, but even here the subjective symptoms are ameliorated.

The administration is simple and the gas can be procured at a small cost in cylinders, or it may be generated, as the apparatus costs but little. About five gallons are used for one treatment, which lasts for five minutes. The treatment is given once daily for a week, then every other day for two weeks, twice the next two weeks, then a weekly inhalation for one to four weeks. In connection we should use a proper diet, drugs and, if possible, a suitable climate.

Mammary Tumors.

Geo. F. Shrady, in the Medical Record for January 26th, emphasizes the importance of an early diagnosis of mammary tumors.

He considers the dimpling of the breast the most significant of all the early physical phenomena of cancer. Exploratory examination of all tumors of the breast should be done before their removal. No matter how plain the case may appear to be, there is no argument against being doubly sure. No tumor of the breast can be considered a trivial affair. The strongest side of the

argument for safety is the removal of all growths whether in young or old.

The main obstacle to the definite settlement of the question is the family physician himself, who too often calms reasonable fears and postpones judgment until the disease entrenches itself beyond the hope of its radical and absolute conquest. Thus the chance of the earliest possible diagnosis is denied the anxious patient and the first irretrievable step is taken toward an utterly hopeless prognosis.

Opium Poisoning.

F. D. Bullard in the Southern California Practitioner for January, advises against the use of atropin in the treatment of opium poisoning. He says that it locks up the secretions and so prevents the elimination of the poison. It may also cause a rise of temperature and being a violent poison we may add atropin poisoning to the opium narcosis. In a case reported he washed out the stomach with a one per cent. solution of permanganate of potash, repeating the procedure in an hour, and this with artificial respiration brought the patient to her senses.

He recommended brandy, ether, camphor, strychnine, caffein, strong coffee and electricity when the symptoms are sufficiently urgent to demand strong stimulation. Flagellation and rough treatment of the patient should be avoided. Traction of the tongue or Koening's stimulant massage over the heart is better.

Venesection and hypodermic injection of normal salt solution he considers rational treatment.

Oxygen and forced artificial respiration are also useful.

An Obscure and Complicated Case of Carcinoma of the Stomach.

C. F. Steele, in the London Lancet, as quoted by the St. Louis Medical Review, reports a case where the chief interest centered in the question of diagnosis. The symptoms were debility and depression, pain in the lower right chest, aggravated by gentle pressure. Rheumatic pains in shoulders, upper arms and pectoral regions. The debility increased, jaundice appeared, normal urine, constipation. No nausea or pain after food. As disease progressed there could be felt two hard lumps about the size of a walnut. Carcinoma of the stomach was diagnosed, which on post-mortem proved to be present in the form of a hard mass occupying the centre lesser curvature.

Antitoxin Treatment of Tetanus.

As a result of a careful study of this subject, Moschcowitz (Annals of Surgery, October), Therapeutic Gazette for January appends the following *resume* to his paper:

All forms of tetanus are caused by the bacillus of Nicolaier; hence the diagnosis rheumatic or idiopathic should have no room in our nosology.

The tetanus toxins appear to have a distinct affinity for the anterior horns of the spinal cord, which may be distinctly recognized by Nissl's method of staining. The cerebrospinal fluid of tetanus patient is more toxic than the blood.

The antitoxin therapy appears to have a distinct beneficial influence upon the course of tetanus.

With the antitoxin treatment the mortality percentage has been reduced from about ninety to forty per cent.

Although the use of the serum is a most important factor in the treatment of tetanus, the other recognized therapeutic measures should not be neglected.

Carcinoma of the Appendix Vermifomis.

According to the Medical Age for January 10th, Hurdon (Johns Hopkins Hospital Bulletin, July—August) describes a case of primary and a case of secondary carcinoma of the appendix. The first was discovered in the course of an operation for retroflexion of the uterus. The appendix was in the pelvis and enveloped in dense vascular adhesions. The distal end was distended, but in the middle third the lumen was almost obliterated by firm new growth; a concretion was present. The new growth was found to consist of epithelial proliferation and infiltration in the form of nests and cylindrical processes, originating in Leiberkuhn's glands. Only three cases of carcinoma of the appendix have been reported in which a microscopical examination was made—one in a woman of fifty who died of heart disease closely resembling the one here recorded; in the other two the disease involved the cæcum secondarily, and communicated with the surface of the abdomen by sinuses. A case has been recorded by Gifford where a sarcomatous growth surrounded a concretion in the appendix. The case of secondary carcinoma was discovered during an operation for ovarian carcinoma; there was also a growth at the pylorus, and the surfaces of the broad ligament were studded with small nodules. The muscular and submucous layers of the appendix were infiltrated with new growth; the outer third was distended and contained a concretion.

Carcinoma of Cecum and Ascending Colon

Syme (Intercolonial Med. Mag., Sept. 20, International Med. Mag., January) records the case of a married woman, 34 years of age, who suffered from flatulence, anorexia and loss of weight, and who had noticed for the preceding 6 months a firm, rounded and movable mass in the right iliac region. Through a median incision the colon and ileum were partially delivered. Rubber tubing was tied around the ileum and clamp forceps applied between it and the cecum and the bowel divided between the two. In a similar manner the colon near the hepatic flexure was divided. A longitudinal incision was made in the colon, through the inner longitudinal band, corresponding in length to the diameter of the ileum. The cut end of the ileum was fixed by 2 sutures to the ends of this incision, and then invaginated and protruded through the cut end of the colon, as in Maunsell's method. The ileum was then rapidly sutured to the edges of the longitudinal incision in the colon, with a continuous fine silk suture, then drawn back. A few Lembert's sutures were put in to strengthen the union. The divided end of the colon was then closed by a continuous silk suture. The cecum and ascending colon were then dissected free, with the mesenteric glands. Hemorrhage was then controlled and the wound united The patient made a good recovery. The tumor was an intussuscepted, cylindrical-celled epithelioma of the colon.

Cardiac Syphilis.

According to the Medical News for January 26th, W. Zydlowicz (Klin-therap. Woch., Jan. 6) points out that syphilis shows a certain predilection for the circulatory organs. In many people, especially the aged, there will be found an arhythmic pulse a short time before the appearance of the roseola which in itself is of slight importance, since it disappears with specific treatment, yet it considerably modifies the prognosis. Later, changes in the heart may take the form of an interstitial myocarditis, depending on an obliterating endarteritis or on gummata or on both together. The pericardium, endocardium and the valves are only involved later by continuity. On physical examination, nothing as a rule is found except arhythmia and a moderately enlarged heart, and most cases are put down as neurotic. Yet the correct diagnosis is of great importance, since a cure is easy in the earlier stages, while later sudden death is very apt to follow. The author relates an interesting case in which mercury and iodide of potassium led to a complete cure.

Choice for Operation for Stone in the Bladder.

Bryan B. Davis in the Western Medical Review for January favors the cutting operation for stone. He says that the mortality of lithotrity, when all classes of cases are considered, is no lower than that of the cutting operations.

The patient's condition after lithotrity is often no better than before.

Recurrences are much more frequent after lithotrity than after the cutting operations with drainage.

Lithotrity is not adequate to deal with the more serious and complicated cases, and the simpler ones will most of them recover after any operation done aseptically.

Erysipelas in a Child of Sixteen Months.

In Pediatria for September as quoted by Pediatrics for January 1st, Nicola Fedele reports a case of very severe erysipelas in a child of sixteen months.

The treatment consisted of injections of carbolic acid, the solution being composed of 2 grams of carbolic acid, 4 grams of alcohol, and distilled water enough to make 100 cc. The region selected for these injections was the nates. On the first day ten injections were given at intervals of one hour between each. During the eight days of treatment the patient received thirty-eight injections, containing a total of 76 cg. of carbolic acid. The erysipelatous eruption began to fade on the third day, the temperature began to fall on the fourth day of the treatment.

The So-called "Irritable Bladder" in the Female.

Bierhoff (Amer. Jour. Med. Sci., Memphis Medical Monthly for January) offers an interesting study of this subject. His conclusions briefly expressed are as follows:

1. The term "vesical hyperesthesia" or "irritable bladder" is in almost every case in the female erroneously applied.

2. As a true *neurosis* vesical hyperesthesia rarely occurs.

3. Where vesical hyperesthesia exists it does so only as a symptom; in the majority of cases as a direct result of some change in the vesical mucous membrane, in the minority as an indirect result of changes in other organs adjoining or near the bladder.

4. The diagnosis of the causative factor must rest upon a thorough examination not only of the bladder, but also of the urethra and genital and pelvic organs as well.

5. The treatment must be directed both against the local changes and the causative factors.

Influence of Alcohol upon Population.

According to the American Journal of Obstetrics for January, Arrive has collected statistics of 402 French families which furnished 1,648 conceptions. Syphilis was eliminated and tubercular history carefully sought for. Alcoholism appeared not to influence fecundity, unless the parents were the issue of alcoholic progenitors, in which case sterility was found to be frequent in the first and to increase in subsequent generations. Alcoholism of the parents leads to premature birth and is a more active abortifacient than tuberculosis; it increases the number of stillbirths. The children of alcoholic parents die most often of meningitis or congenital feebleness. Alcoholism causes physical and mental degeneration of many descendants.

Intestinal Juice in the Treatment of Intestinal Occlusion.

E. Vidal, in Rev. de Chir. for Oct. 10th, Medical Record for January 5th, says that the purely mechanical conception of intestinal occlusion is no longer found satisfactory. The important factors of the condition are now recognized to be the stasis of septic and toxic substances in the intestinal tract, an increase in virulence of the bacteria within the strangulated loops, and a disappearance of the defensive agents with consequent penetration of the coli bacillus, and resorption of the active microbial toxins and putrid poisons. Stercoræmic infection is the usual cause of death in these cases. The author holds that the injection of intestinal juice will neutralize poisons already in the circulation and in every way take the place of the normal secretion which has been impaired, His experiments on animals bear out his theory. Unfortunately in the case of two patients, treatment was begun too late to save life, but many symptoms were so markedly relieved as to indicate happier results in cases treated in time.

Lymphatic and Portal Infections Following Appendicitis.

John C. Munro, in the Therapeutic Gazette for January, in an article on this subject offers the following conclusions:

That the retroperitoneal lymphatics are probably always infected to some extent in inflammation of the appendix, the degree of the infection not necessarily depending on the extent of the appendiceal inflammation: a mild, chronic appendicitis at times giving rise to a severe lymphangitis.

That the lymphatic disturbance may date its origin from an appendicitis occurring many months beforehand.

That a lymphatic infection severe enough to warrant local treatment is rare when compared with all the cases of appendicitis, but that such an affection is probably more common than a portal infection.

That mild infections of both the lymphatics and of the portal system may yield to medical treatment.

That persistent fever, without other evident cause, should suggest one or both of these infections.

That spasm, tenderness, and later fulness, in the right loin should indicate a retroperitoneal infection from some source or other, possible due to an appendicitis, though due in many cases to renal, hepatic, pleural, or other lesions.

That chills and hepatic tenderness, associated at times with jaundice, may be of appendiceal origin, and that this origin, especially in obscure cases, should be sought for most carefully in physical examination, in the personal history, and, if necessary, in abdominal exploration.

That drainage in the loin gives prompt and satisfactory relief where pus or even a diffuse cellulitis has formed.

That prompt and thorough drainage of the liver, together with removal of the inflamed appendix, offers the best means for recovery from septic infections of the liver.

That aspiration of the liver is an imperfect, unsatisfactory, and unsurgical procedure. Abdominal section with definite, free exploration of the liver and free opening of all abscesses within reach is far more satisfactory, not difficult, and less dangerous than aspiration.

Menstruation in the New-Born.

According to the Medical News for January 12th, Kouindjy of Paris read a very interesting report of three cases of menstruation in newly-born children (Archives de Medicine des Enfants, November). So rare has this been that Naegele considered vaginal hemorrhage in this class of patients to be a myth; however, the author states that some isolated reports have been published by Underwood Billard, Ollivier, Bovain, and a few others. In 1876 Dr. Cullingmont is said to have presented to the Manchester Obstetrical Society a report of some 32 cases. The 2 cases of Dr. Kouindjy were observed during the last three years. Two of the cases were healthy children born to the same mother, a sanguinous discharge appearing on the fourth or fifth days, respectively, after birth; the third case, likewise well

built, had a similar vaginal discharge on the fourth day after birth. The writer finds that opinion is by no means uniform with regard to the interpretation of these hemorrhages. For some the discharge is the result of some lesion in the genital tract; others, on the other hand, like Camerer, believe that the bleeding is the result of disturbances in the pelvic circulation induced by a hurried ligation of the cord. A few like Ollivier, Pinard and the author, fancy that many are genuine instances of precocious menstruation.

Operations during Pregnancy.

A. Spinelli, according to the American Journal of Obstetrics for January, removed by laparatomy from a woman four months pregnant a uterine fibroid which, though not observed by another examiner six months before, weighed three and a half kilos. Abortion followed. During a subsequent pregnancy vesical symptoms, present to a slight degree before, became severe, and vaginal cystotomy showed two large calculi which had developed upon the silk ligatures employed in the former operation and subsequently eliminated into the bladder. This pregnancy terminated normally.

Observations on Compressed Air Illness.

F. R. Wainwright, in the London Lancet, as reported in the St. Louis Medical Review, discusses the pathologic effects of compressed air met with by him in the course of his duty as medical officer to the Baker Street and Waterloo Railway Tunnel Works. The effects are divisible into two classes: (a) those consequent upon the mechanical pressure, *per se*, *e. g.*, pain in the ear, frontal and maxillary sinuses and carious teeth; and (b) symptoms manifested after leaving the pressure, *e. g.*, pain in joints, paralysis, cerebral symptoms, and even death. A complete discussion of his experience is given.

Heredity of Tuberculosis.

Hutinel in Arch. de Med. des Enf. as abstracted in the Archives of Pediatrics for January, says that it is generally admitted that tuberculosis has a considerable hereditary influence, and that the germ itself or a predisposition may be transmitted. The transmission of the bacillus tuberculosis at the time of conception has never been proven, but a fetus may become infected in utero by the mother. Congenital tuberculosis is an indisputble fact, and has not only been noted in still-born infants, but in viable and well-developed babies. It plays a part in the propagation of phthisis, though a very restricted one. Anatomic examination of the initial lesion in cases of infantile tuberculosis proves the greater frequency of post-partum infection. The frequency of tuberculosis among children of tuberculous families is partly due to an hereditary predisposition. Many cases occurring in youth or adult life are the result of the lighting up of latent lesions acquired by contagion at an early age. Hereditary tuberculosis may be very grave, the child being exposed to contagion and resisting it badly, or there may be an attenuated form of the disease, as if the child were immune up to a certain point. This may be explained by assuming the inheritance of a predisposition to tuberculosis together with a special state of resistance.

Intestinal Obstruction Due to Intussusception.

According to the Journal of the American Medical Association for January 5, Louis E. Cook reported a case of a girl 7 years of age, well developed and nourished. He was called first on the morning of June 28, and found her vomiting and complaining of cramps in the right side of the abdomen. The attack was sudden, as she had gone to bed the night before perfectly well. Pain was so severe that palpation of the abdomen was impossiple. There was no fever. Vomitus was chiefly of mucus. A provisional diagnosis of intestinal indigestion was made, and hot applications were ordered to the abdomen and calomel and soda internally. During the day the bowels were moved by large enemata. Vomiting almost continuous, accompanied by much retching. On June 29 she passed a very bad night, pain continuous, no sleep; vomiting persisted during the day. On June 30 pain somewhat diminished, so that for the first time an examination of the abdomen could be made. Small elongated mass could be detected in the right iliac region; abdomen flat. Rectal examination was negative. Diagnosis changed to intussusception and a high enema given, with, however, no result. On July 1 she passed a restless night, better, however, than the preceding, the vomiting ceasing for about six hours. At 7 in the morning vomiting began again, becoming bilious. An enema was given at a temperature of 105 degrees, with high pressure from a fountain syringe, the patient being in the knee-elbow position. About one and one-half gallons of water were used. Vomiting was incessant during the injection. After the enema she passed some small, soft fecal masses and a

large amount of gas, the first since the beginning of her illness. Vomiting stopped until evening, and it was then very slight. Mass in iliac region had disappeared. On July 2 child passed a fairly good night; vomiting stopped; bowels moved once. During the day rectal alimentation of peptonized milk was begun. She began feeding by the mouth by the 4th, and on the 8th of the month was able to take solid food. The temperature throughout the attack was seldom more than 1 degree above the normal.

Jaundice in Typhoid Fever.

According to the Medical Record for January 26, Geo. Ogilvie, in the British Medical Journal for January 12, declares that jaundice is generally considered a rare and grave complication of typhoid fever, but he believes that its rarity and fatality have been overestimated.

His observations show that in some cases of true typhoid fever jaundice may run a course "totally different from what is usually observed," and that this fact alone is not sufficent to construct a new clinical species. It seems almost certain that the etiology is not of a catarrhal nature. The coloration of the stools, the tenderness of the right hypochondrium on pressure which has been observed in one case reported by the writer, and the nausea following from pressure over the region of the gall-bladder, all point a different direction. There are certainly other changes of the liver besides abscess and gall-stone which, although rarely, may lead to jaundice in typhoid fever; but whether they can all be regarded as toxic may be open to doubt. But clinical and pathological evidence alike seem to prove that catarrhal jaundice in typhoid fever, so far from being the rule, is an exceedingly rare occurrence. In cases like the two which the author reports in this article "some direct action of the specific micro-organisms on the liver or bile channels" (Da Costa) which seem to be most probable cause of the jaundice, while perhaps the description given by Mathieu—"benign hepatic typhoid"—describes best the clinical aspect of these and similar cases.

Lesion of Heart Disease.

In the Journal of the American Medical Association for January 12th, Solomon Solis Cohen has an article on the relative importance of valvular and muscular lesion diseases of the heart. He states that in the great majority of cases of chronic disease of heart, the exact site and nature of the valvular lesion, while always to be taken into consideration in treatment, are of less importance therapeutically and prognostically than the state of the cardiac muscles.

The most important exception to this general rule is the case of mitral stenosis with great narrowing. Aconite is often of use in this condition to reduce the excessive muscular effort, even when compensatory hypertrophy has not become sufficient.

In many cases in which no evidence of valvular lesion can be detected during life, and in some of which slight valvular alterations, in others normal valves, are demonstrable after death, there exist rational signs of cardiac imcompetence which are due to diseases of the cardiac muscle.

The symptoms and physical signs of cardiac myopathy are inconstant, and in the early history of the case may be slight. In the absence of valvular lesions, intermittence or irregularities of the pulse or apex-beat, disturbance of rate or rhythm by slight causes, and recurrent pain referred to the precordium, in non-hysterical and non-neurasthenic subjects, are the principal local symptoms calling attention to the disease of the cardiac muscle. Tinnitus, vertigo, dyspnea, venous ectases, visceral congestion, edema, and other evidences of circulatory disturbance may be slight and escape attention until sought for. There is usually impurity or weakness of the first sound of the heart, with approximation of the two sounds in quality or relative accentuation of the second sound; later embryocardia and gallop rhythm may develop.

Gout, syphilis, alcohol and tobacco, tea and coffee, sexual excesses, mental strain and physical overwork, either in serious pursuits or sports, are among the chief provocations of disease of the myocardium, apart from those lesions secondary to the acute infections or consecutive to nephritis or valvular disease. Among the acute infections, influenza is a frequent cause of cardiac muscle disease.

Other than the general diagnosis of disease of the myocardium, there is not yet sufficient knowledge of clinical signs to permit accurate recognition ante-mortem of the pathological nature of the lesion.

The diagnosis between neurasthenia of the heart and disease of the myocardium may be difficult.

The chief importance of the subject lies in the avoidance of error; *a*, in the prognosis and treatment of valvular disease which may be overtreated or undertreated through failure to estimate properly the condition of the muscle; *b*, in the recognition of serious lesion of the muscular structure of the heart in cases that have been sup-

posed to be normal because of the absence of valvular murmurs; *c*, in the distinction between organic muscular lesions and functional disturbance, and in the realization of the fact that the latter may lean to the former.

In treatment, judicious regulation of diet, rest and exercise; avoidance of exciting causes and excesses of any kind; the good functional condition of the skin and eliminative organs, are of the first importance. Warm saline, carbonated baths and, in some cases, gentle massage and resistance exercises carefully adapted to the individual case, are of great benfit. Nitroglycerin is the most useful single agent of the materia medica. Strychnin, digitalis, adonis, cactus, strophanthus and spartein have usefulness in indivldual cases. Arsenic, gold and soldium chlorid and iron are useful tonics. Potassium iodid and mercurials sometimes have special indication. Venesection should be made promptly and sufficiently in the case of sudden and urgent symptoms of cardiac failure.

Lateral Curvature of the Spine.

In Pediatrics for January 15th, Chisholm Williams gives an analysis of 500 cases of lateral curvature of the spine and treatment.

As to age, 33 were under 6; 66 from 6 to 10; 121 from 11 to 15; 175 from 16 to 20, and 105 over 21. His treatment was to improve the general condition, the use of manual and mechanical pressure, Barwell's rachilysis, Barwell's lateral sling, Volkmann's sloping seat and weight pressure, keeping up the improved position by means of the Chance apparatus.

This apparatus has the following arrangement:

Between the shoulders is a metal plate, having attached to it two straps which pass through the axillæ and brace back the shoulders; it is joined to a perpendicular slotted rod which passes downward to a crescent-shaped metal band (pelvic girdle) joined in front by a strap and situated on a level between the crest of the ilium and great trochanter; over the convexity of each curve a plate is accurately adjusted by means of short metal arms which connect the plates to the perpendicular rod. A broad abdominal belt completes the splint. All parts in connection with the skin are thickly padded. Accurate adjustment is made by means of wrenches and a key for the nuts. The curved plates can be moved up and down and laterally and then fixed by the key whilst greater nicety of position can be obtained by wrenching the short arms or the rod. At the first sitting the splint must fit perfectly and from time to time be altered as improvement progresses, readjusted and the better position kept up. It does not fix the column as in a vice, but always allows of a slight amount of muscular action which is sufficient to bring about a lessening of the curves in the great majority of cases, more especially when combined with other means. The patient should be directed to "get away from the plates," as every time she did so, she is in a better position and when she drops back cannot resume a more faulty position than the splint will allow; when this becomes somewhat habitual the splint must be again readjusted, and so on, till the cure is complete. It should be worn, as a rule, at all times—night and day, and only taken off for douching and exercises. In extremely severe cases, where cure is out of the question, the splint is of the greatest comfort to the patient and prevents any increase of the deformity. Adaptability, ligatures, cleanliness, durability and great efficiency are its chief merits.

Under the age of 5 years a leather or gutta-percha splint, suitably padded, is sufficient to overcome the curves.

Special exercises were ordered for each weak muscle or group of muscles until the spine was straight then general muscular exercises were given to assist in keeping it in position.

Other aids were massage, galvanism, and rubber exercisers.

The ease with which any case of lateral curvature of spine is treated depends on the following:

1. Intelligence and willingness on the part of the patient.
2. The care and help of parents or friends.
3. The assistance of the surgeon.

Fractures of Lower End of Radius.

In the Railway Surgeon for January 22, Ira K. Gardner advises against the use of cumber some splints in the treatment of the lower end of the radius. He says that to begin passive motion and massage early, means the shortening of the time the patient is deprived of the use of hand and arm by several days and perhaps weeks.

To immobilize the fingers in long splints, or to separately bandage them as advised by a prominent surgical author, means rigidity for a longer or shorter period after the dressings are removed. To completely reduce the deformity before applying the dressings means no abridgment of function. To allow the splints to remain on longer than the fourth week, or as long as the fifth or sixth week as taught by some

authors, and as practiced by some surgeons means a prolongation of the period of convalescence. To depend on splints, pads and compresses to push the broken bones into place, instead of doing so by proper traction and manipulation, means the neglect of one of the most important factors in caring for these fractures.

In persons where the rheumatic or gouty diathesis is present it may be that some stiffness of the fingers will remain, but even this result may be usually avoided by proper care and attention.

Fibromyoma and Cancer.

According to the Medical Age for January 10th, Panchet in the British Gynecological Journal for November, states that most of the cases of cancer of the body of the uterus which he operated upon originated in small fibromatous uteri which after a quiescent condition of several years, had eventually given rise to sanguineous discharges and pain, indicating malignant transformation. Five of his specimens were fibromatous uteri with their cavities packed with cancerous vegetations. His conclusions are as follows:

1. He only operates in early cases.
2. He removes *en bloc* the whole uterus by the abdominal method.
3. He advocates the removal of all fibromata, if only as a dangerous nidus for cancerous development.

Claisse says: "When a uterine fibroma has been recognized and a vaginal discharge of a serious, often offensive, character is observed, with occasional violent hemorrhage and paroxysms of intense bearing-down pains, these symptoms, especially if they are observed at the time of the menopause, should arouse a suspicion of malignant degeneration of the uterine mucosa, which direct examination will often confirm."

Experience has shown that total abdominal hysterectomy gives the best results, several cases of partial removal having been observed to require a second operation from the return of the malignant process in the stump.

Fibroid of the Uterus

In the Boston Medical and Surgical Journal for January 24th, Maurice H. Richardson reports a case of obliteration of the right ureter by a calcified fibroid. The fibroid was removed and the ureter implanted in the bladder, the patient making a good recovery. The case shows some of the dangers of leaving an old fibroid to itself. For ten years the tumor had been worrying the patient and on exposure it was found widely adherent, the deeper portions in the right side being calcified. It was removed with great difficulty the closed end of the obliterated ureter being torn open in the removal, together with a part of the sigmoid flexure. The end of the ureter was transplanted into the bladder and the gap in the sigmoid closed by a few silk sutures. He recommends a safe plan in pelvic surgery, viz.:

To make the dissection of the deep pelvis —like that of the deep neck—in the full light of day, where every structure can be recognized as the dissection proceeds. He says that the cases in which this deliberate dissection cannot be made, or in which the structures are too changed for recognition are extremely infrequent.

Hyperphoria.

Wendel Reber in the Journal of the American Medical Association for January 10th, gives a clinical study of 150 cases of hyperphoria. He says that hyperphoria is spurious or intrinsic; the former being almost invariably an outward expression of perverted accommodation, the latter is uninfluenced by a mydriatic.

From a study of these cases he records the following conclusions:

Hyperphoria occurs in about 1 out of 6 patients who seek council of the ophthalmologist.

It is present to the extent of .5 degree or more in 1 out of 3 refraction cases.

It becomes worthy of special attention in about 1 out of 5 refraction cases.

It is more likely to be latent before the 20th year—33 per cent. of all cases—and manifest after that time.

It occurs most frequently to the extent of about 1 degree.

The most frequent symptoms are supra-orbital, temporal, and occipital neuralgias, photophobia, drowsiness, and abnormal physical tire after prolonged near work.

A full quota of sleep, daily open-air exercise, and a well-regulated life are all highly important factors in trying to make hyperphorics comfortable.

Hyperphoria is found in a little oftener associated with esophoria—57 per cent.—than with exophoria—37 per cent. This is probably because compound hyperphoric astigmatism with its associated convergence-excess outnumbers all other anomalies of refraction.

Convergence-training—if convergence be insufficient—and convergence-repression—

if convesgence be excessive—frequently relieve hyperphoric symptoms entirely.

The vertical prims has a field of pronounced usefulness.

Prism corrections will be of service in about 50 per cent. of all cases. One-half to two-thirds of the hyperphoria may be corrected for infinity and two-thirds to the full amount of work at the occupation distance.

When all of these means have been exhausted, section of some one of the vertical muscles may be thought of. About 1 out of 20 hyperphorics whose deviation is 2 degrees or more will profit more by tenotomy than by any other treatment. Two or three degrees is likely to be the amount permanently obtained by vertical tenotomy.

The only fruit that can be borne of the attempt at hospital or dispensary treatment of hyperphoria—or for that matter any but the simplest muscular anomalies—is vanity and vexation of spirit.

Lithemia as a Factor in Surgical Work.

In the International Medical Magazine for January, E. E. Mortgomery says that a lithemic condition of the patient may seriously interfere wirh the recovery from a surgical operation. The eliminating powers should be at their best before the operation is done. An examination of the urine and measurement of quantity passed in 24 hours will give valuable information. An excess of uric acid associated with deficient secretion of urine should call for the careful preparation of the patient. Where lithemia is indicated, a pint of hot water should be given three times daily for two or three days prior to the operation with four to five grains of strontium salicylate. After the operation the bowels should be carefully looked after.

Hysterectomy in Puerperal Infectiou.

In the New York Medical Journal for January 26th, H. J. Boldt says that it is impossible to lay down any hard and fast rules as to when it is proper to remove the uterus for puerperal infection. One's conscience must be the judge, but for general guidance he suggests the following indications for hysterectomy:

If, after a full term delivery or an abortion, there are no conception products in the uterus, and the patient has fever with exacerbations, chills, and a small and frequent pulse (120 to 140 or more), if careful observation should show that the infection comes *from the uterus alone*, that organ being enlarged, and relaxed in its consistency, if there is no evidence of peritonitis, the parametria being free, if streptococci are found in the uterus, and, especially, if the blood shows the presence of pathogenic germs, as in Prochownick's patients.

If there are decomposition products in the uterus, as in the instances reported by Schultze, Sippel, Prochownick, Stahl, and others, which cannot be removed satisfactorily *per vaginam;* if, on doing a Cæsarean section, the uterus is found septic, then an abdominal hysterectomy is indicated.

Abdominal section with drainage is indicated in diffuse septic peritonitis when there is no evidence of an exudate in the pelvis. The adnexa are to be left undisturbed unless there is some positive indication to do otherwise.

Lacerated Wound of the Palate.

Before the Brooklyn Surgical Society, as reported by the Brooklyn Medical Journal for January, Henry Wallace presented a boy eight years old, who, while playing on the street, fell, driving a tin whistle which he held in his mouth through his soft palate.

Examination showed that the soft palate had been torn away from its attachment to the hard palate for about two-thirds of its extent, and hung in a festoon which rested on the base of the tongue. The torn edge on the wound, especially at the point of impact of the foreign body, was ragged, and at one point a small piece of tissue had been gouged out. There had been considerable hemorrhage immediately after the accident, but it had ceased spontaneously. The ether was administered in the recumbent position, and as near to an overhanging gas-bracket as was safe. A mouth-gag having been inserted, the ragged edges of the wound were trimmed and six small chromicized gut sutures were inserted. This procedure took about an hour. The difficulty was in getting sufficient light on the field of operation, it being night, and also in passing the sutures through the soft tissues overlying the hard palate, the soft palate having been torn away at its very connection with the hard palate, Perfect apposition, however, and perfect primary union were obtained. At the present time it is with difficulty that the full line of the wound is outlined.

The case was shown to demonstrate a very happy result obtained in a condition which, although apparently simple, is attended with much practical difficulty in restoration to the normal.

Ligation of the Internal Jugular.

In the Medical News for January 19th, Chas. G. Levison reports a case of ligation of the internal jugular. The patient was operated on for a large tumor of the neck which was firmly attached to the tissues beneath involving the jugular. The vein was ligated in two places and about two inches of the vessel removed with the tumor. There was no reaction, no circulatory disturbance and no change in the size of the pupil. On the fifth day the wound was doing nicely, but head symptoms came on and the patient died in coma next day. On autopsy the wound in the neck was found quite healed, but a clot was found in the lateral sinus continuous with the clot in the jugular.

He gives the indications of Rolesbach for ligation of the internal jugular as follows:

1. Hemorrhage due to a laceration or erosion—here the lateral ligature or suture has its place.
2. Tumors involving the vein.
3. Periadenitis due to tuberculous lymphomata closely adherent and inseparable from the vein.
4. Aneurismal varices.
5. Pyemic otitis, complicated by thrombosis of the lateral sinus.

Migratory Foreign Body.

In the New York Medical Journal for January 19th, D. Braden Kyle reports a very interesting case of migratory foreign body in the face. The patient had several attacks of severe pain in the head and face but they were thought to be neuralgic. The symptoms at times indicated mastoiditis or ethmoiditis. In the interval of the attacks she complained of a peculiar crawling sensation under the skin and at the same time there would be a profuse perspiration from the scalp and face. During a severe attack there was a profuse discharge of pus from the nose with immediate relief. Shortly after in blowing the nose the patient felt something hard in her handkerchief. It proved to be a small piece of a needle. One year later the X-ray showed a foreign body seeming in the cavity of the antrum this was opened through the canine fossa and examined but nothing could be found. Shortly afterwards a piece of needle worked out near the opening and the patient made a rapid recovery. Nobody could tell when or how the needle had gotten in the scalp. For ten years or more the needle had worked its way down from the scalp to the gums of the upper jaw. The peculiar crawling sensation was thought to be hysterical until the first piece of needle showed up. An X-ray burn resulted from the examination and all of the hair dropped out on one side, the skin blistering and peeling off. There was no bad systemic effect and the hair has been restored.

Chronic Rheumatic Peritonitis.

According to Pediatrics for January 1st, Galvagni, in Pediatria for September, reports a case of chronic rheumatic peritonitis.

The patient was a girl, aged 8 years, whose illness had been of two years duration when she was admitted. The first symptom was an eczematous eruption on the face and on the other portions of the body. This eruption came on at intervals and then disappeared, and returned again. About two years ago the mother noticed that the child complained of pains in the abdomen, of headache, of afternoon feverishness, and found that the child's abdomen was considerably enlarged. The fever and pains passed off but the swelling remained and grew more marked. On examination, it was found that the liver and spleen were normal, but the abdomen contained a certain amount of fluid. The urine showed no deviations from the normal. The writer excluded the presence of an ascites due to disease of the liver, or of the kidneys, or of the heart, and the possibility of tuberculous peritonitis. The patient's mother refused permission to tap the abdomen in order to obtain some fluid for examination, and also refused permission to subject the child to the tuberculin test. The absence of other tuberculous foci, the apparent serous character of the exudate, the absence of cachexia, profuse perspiration, etc., however pointed against the presence of tuberculous peritonitis. The possibility of a tumor of the peritoneum was also excluded by the absence of a palpable tumor, the absence of pain, cachexia, and the age of the patient. There remained rheumatic peritonitis or the so-called idiopathic chronic peritonitis of Trousseau, which Galvagni showed to be of rheumatic origin. The writer agreed with Galvagni, and presented this case as one of rheumatic peritonitis to his students at the University of Catania.

Data on Experiments on the Susceptibility and Immunity to Tuberculosis.

Omeltsheuko (Vratch, International Med. Mag.) performed the following experiments with the serous effusion of a tuberculous patient:

Three guinea pigs received subcutaneous injections of 2 c.c. of serous pleural effusion

daily. They died on the 12th to 15th day. A fourth young guinea pig received only 1 c.c. daily. It died on the 23d day. Autopsy showed absence of tubercular lesions. However, when the injections were made gradually, with frequent interruptions, the pigs increased in weight and remained well, although each injection was followed by a slight reaction. The effusion, however, failed to protect guinea pigs against tuberculosis, nor did it cure them of the disease already existing. The effusion was then injected into cats in order to increase their natural immunity to tuberculosis. An injection of virulent tubercle bacilli into these animals was followed by a slight reaction, but otherwise had no deleterious effect. The animals received injections of the effusion, 2 c.c. daily, for a period of one month. At the end of that time they were bled, and the clear serum collected. The latter was injected into 2 guinea pigs which were subsequently inoculated with tubercle bacilli. Both died much sooner than the control animal. To determine whether the serum is in itself toxic the author injected the cat's serum into three healthy guinea pigs with the result that they remained perfectly well. Two weeks later each of these guinea pigs received 1 c.c. of a bouillon culture of tubercle bacilli of tested virulence. They remained well and gained in weight. Two were killed at the end of 2 months, and the autopsy showed complete absence of tubercular lesions. The third guinea pig gave birth to three healthy offspring. The author comes to no definite conclusions, stating that numerous experiments will have to be performed before definite results are obtained.

A Study of One Thousand Operations for Acute Intestinal Obstruction and Gangrenous Hernia.

According to the Therapeutic Gazette for January, Gibson (Annals of Surgery (No. 4, 1900) has collected his material for this paper from publications of cases operated on between 1888 and 1898. His cases were all acute and include 354 cases of hernia, 187 cases of intussusception, 186 cases of bands, 121 cases of volvulus, 42 cases of Meckel's diverticulum, 40 cases of gallstones, 34 cases of openings, 16 cases of foreign bodies, and 20 miscellaneous cases. The mortality is greatest from obstruction due to strangulation, through openings such as the foramen Winslow; it reached sixty-seven per cent.

Gibson appends the following summary to his paper:

The most frequent cases of intestinal obstruction are intussusception and bands. The mortality is forty-seven per cent. The mortality of resection is seventy-four per cent.

The mortality of artificial anus is seventy-seven per cent. The mortality depends upon the duration of the obstruction and on its nature, being least in foreign bodies, inflicting little or no damage to the intestine (twenty-five per cent), and most in such conditions as produce a tight constriction, as "openings" (sixty-seven per cent).

The mortality of hernia is thirty-four per cent. The proportion of female herniæ is fifty-nine per cent. The ratio of mortality of inguinal herniæ to femoral is as three to four. The mortality of resection and primary enterorrhaphy is twenty-six per cent. The mortality of artificial anus is fifty-three per cent.

In resection and primary reunion by suture, the mortality is thirty-eight per cent. In resection and primary reunion by apparatus (including Murphy button), the mortality is thirty per cent. A large proportion of deaths are due to failure of technique, such as removal of too little intestine or imperfect suture. At least thirteen per cent of resections are attended with defects of technique, either resulting fatally or in the formation of intestinal fistulæ.

The mortality is lowest in internal obstruction, such as a foreign body, and highest in obstruction by an unyielding constriction, such as a band, and lower in hernia than in internal obstruction, chiefly because the surface exposed to absorption is less. The chief sources of mortality are: The desperate character of the majority of the case; failure to establish the opening above the site of constriction; failure to provide for the relief of absorption from gangrenous changes in the intestine, death often necessarily occurring on this account, although the obstruction is perfectly overcome.

Prominent among the drawbacks of artificial anus is the fact that it must subsequently be repaired; for in most cases there is no tendency to spontaneous closure, while minor plastic operations are rarely efficient. Formal liberation of the intestine and secondary resection is usually an exceedingly difficult operation, as is evident by its mortality; after intestinal operation, forty-three per cent; after gangrenous hernia, twenty-seven per cent; average, thirty per cent.

The cause of death after operation fall into three main groups:

1. From causes inherent to the condition and little amenable to treatment—such as shock and preexisting peritonitis—these

causes accounting for the majority of fatalities. Improvement can only be hoped for by earlier recognition of the condition, thereby securing the performance of operative relief before the severer changes take place.

2. From causes depending chiefly on the nature and the details of the operation, such as failure to relieve obstruction and defects in technique, or failure to take account of the conditions to be dealt with.

3. On intercurrent conditions.

The most essential feature in the prognosis is the duration of the obstruction. In early interference there is generally only one condition to be fulfilled—removal of the obstruction. With long continuance of this condition, secondary changes of the greatest gravity supervene, requiring for their relief measures of great extent and and difficulty.

The nature of the obstruction is the next important factor, acting in the same way as in the first instance as to changes in the intestinal walls, the prognosis being best in internal obstruction, and worst in tight external constrictions.

Puerperal Eclampsia Treated by Diuretic Infusions.

Jardine, in the British Medical Journal as quoted by the Boston Medical and Surgical Journal for January 10th, reports a series of 22 cases of eclampsia treated by diuretic infusions. He says that in the actual seizures of eclampsia diuretics by the mouth are too slow in action, and that for the past three years he has been giving saline infusions consisting of sodium chloride and potassium bicarbonate or sodium acetate. The infusions are given usually under the breast. In his first 12 cases he used potassium bicarbonate and sodium chloride in equal parts, a drachm to the pint. In the last 10 cases he has substituted sodium acetate for the bicarbonate of potash, using 1 drachm of it with one drachm of sodium chloride to the pint of sterilized water at a temperature of 104 deg. One to 3 pints may be used at a time and is repeated if necessary. Aseptic precautions are rigidly followed, but the author has never had any sloughing or abscess formation in 200 infusions. He feels confident of the diuretic action of the infusion, as in some of his cases from 60 to over 100 ounces of urine were measured in the first twenty-four hours. In several cases analysis of the urine before and after infusion gave a marked increase in urea and uric acid after infusion. In addition he gives chloroform, veratrum viride, chloral and bromide, and magnesium sulphate. The obstetric treatment is varied according to the condition of the patient. If there is no indication of labor he does not empty the uterus unless the convulsions continue, and then if dilatation is difficult the cervix is freely incised. Cesarean section he thinks unjustifiable in these cases, as the results have been anything but good. Of the 22 cases treated by diuretic infusion, most of which were very severe, all but 5 recovered, and 1 of these 5 died on the seventh day of perforating duodenal ulcer. This case being properly omitted, leaves a mortality of only 4 in 22 cases, which is noteworty in a series of hospital cases.

Post-Hemiplegic Motor Aphasia

Before the Toronto Clinical Society. as reported by the Journal of the American Medical Association for January 5th, W. H. Papler presented a man aged 43, who in 1891 had severe headaches lasting for a couple of weeks and followed by weakness of the right arm and leg with some difficulty of speech. From this he gradually improved. Two years thereafter he had another attack, at which time he remained in the hospital perfectly insensible for three weeks. He regained consciousness and left; there was no paralysis at that time. About six months after that he had a series of attacks of temporary insanity lasting from two days to two weeks at a time and six to eight months elapsing between the attacks. He is now the subject of these attacks. During them he cannot speak voluntarily nor answer any questions. He cannot repeat words and can not read aloud nor write. In most of the attacks he uses oaths and unintelligible gibberish. The attacks are now very frequent, varying from one to eight in twenty-four hours and lasting a minute or less. There is no paralysis remaining now, but there is slight rigidity of the right leg and walking is defective. Dr. Papler considers that there was originally a hemorrhage or a thrombus in the middle cerebral with serious injury to the posterior part of the third left frontal convolution. The patient has been taking a dram of potassium iodid three times a day.

Pregnancy Following Removal of Both Ovaries and Tubes.

A case in which pregnancy followed removal of both tubes and ovaries is reported by M. A. Morris, in the Boston Medical and Surgical Journal for January 24th. The operation was done in July, 1898, menstruation came on soon after the operation and continued regularly and painlessly for 4

months. In May, 1899, she began to show signs of pregnancy and in September, 1899 was delivered after a natural labor of a healthy girl. In a short while she began to menstruate and has continued up to the present. In explanation he says there may have been a third ovary or a scrap of ovarian tissue left behind. Regarding the passage of the ovum into the uterus, the ligature may have dropped off allowing the canal to open or there may have been another ostium between the ligature and the uterus.

Lumbar Hernia.

The Medical Age says that at a recent meeting of the Berlin Medical Society, H. Borchardt (Medical Press, Dec. 19) gave a communication on lumbar hernia, with demonstrations. There were three groups. In the traumatic, which comprised twenty of the forty-seven cases collected, trauma scarcely anywhere played such a part as it did in lumbar hernia; falls from a height, a blow from a carriage-pole, sabre cuts, perforating gunshot wounds, etc., were the cause to which the mischief was attributed, two in consequence of suppurations. There were also twenty-two cases in which the hernia was said to have come on spontaneously. In a number of cases no etiological reason could be ascertained; in others, pregnancy and weakness of muscles in old people were given as the cause. After deducting all the above cases there still remained a small number which were congenital. He showed a boy, aged fifteen months, who was much emaciated from inrercurrent bronchitis, who had a hemispheteal protuberance between the chest and crista ilii. This varied in size; it was small when the infant was at rest, and large when it cried. The tumor could be made to disappear by taxis. Within it could be felt, along with loops of intestine, the enlarged spleen and the left kidney. In three cases the hernia had been bilateral, and in the infant shown there was weakness in the muscles of the opposite side. Only four of the cases had been operated on, as strangulation is very rare in such herniæ. A case was operated on, however, by Ravaton in 1738, which recovered.

Peritonitis Tuberculosa.

Rud. Oehler (Munch. Med. Woch., Medical Age, January 25th) gives his observations during the past five years on thirty-nine cases of tubercular peritonitis which he has been able to keep watch of. He says hospital reports show a percentage of fifty to seventy-five "cured," after operation. The trouble is that these cases leave the hospital and are lost. Among his thirty-nine cases, eighteen died, mostly from meningitis; twenty-one are living and healthy, or about fifty-one per cent. However, he admits the possibility of having made a false diagnosis in some. From his observations he draws the following conclusions:

1. Tubercular peritonitis belongs to the diseases of childhood.

2. Half of the cases die, mostly from meningitis, otherwise from emaciation and exhaustion.

3. Even without an operation, in a considerable number, especially children, where there can be no doubt of the diagnosis, there occurs a spontaneous recovery.

Should Exudative Pleurisy be Treated with Dru s Only.

This question is answered by S. V. Levaschoff in Vratch for November 18th, as quoted by the N. Y. Medical Journal for January 12th. The author gives his experience with various drugs employed externally and internally in serous pleurisy. In eighty-two cases thus treated he has not seen any improvement from the use of the various cathartics, diaphoretics, diuretics, cardiac stimulants, etc., nor from the application of cantharides, iodine, or iodine mixed with guaiacol, He does not think that these external remedies can have any effect on the absorption of the exudate, and frequently the only results from the use of iodine solutions are severe blistering and desquamation of the skin. He found, however, that these counter-irritaants were very efficient, so far as allaying acute pain was concerned. The author's view concerning the inefficiency of cathartics, diaphoretics and diuretics is supported by the testimony of many modern observers in England, Germany and France. The author concludes that the ancient method of treating pleuritic exudates is not to be relied upon. As regards salicylates, he began using these drugs in the eighties and has found that they are the only class of remedies that can be said to be of value in causing the absorption of pleuritic exudates. They may be used in mild cases with small quantities of serum in the pleura, with the expectation that they will arrest the inflammatory process and cause the absorption of the exudates. Too large doses should be avoided, as they are not more efficient than doses of medium size. If the salicylate fail to give favorable results within from fourteen to twenty-one days, their use is to be discontinued, the serum evacuated by puncturing

the pleural sac, and the effusion replaced by some neutral fluid. Salicylates will be sufficient in about one third of the cases; the remainder must be treated by puncture and evacuation. There are a number of cases, however, which tend to get well spontaneously, simply with the proper mode of life and with the removal of all influences increasing the effusion. Therefore, all observations concerning the value of a method of treatment is pleurisy with effusion must be made after waiting a sufficient period of time to see whether the effusion does not tend to disappear of itself.

Trophic Disorders and Disorders of Sensation in Hemiplegia.

P. Chatin, in Rev. de Med. for October 10th, as quoted by the Medical Record for Jannary 5th, from a study of a number of cases, concludes that trophic and vasomotor disturbances are of frequent occurrence in hemiplegia, and are usually more marked in the upper than in the lower extremity. Disorders of sensation, whether subjective or objective, are also almost constantly present. Motor troubles alone may be accompanied by the symptoms of dystrophy, but when motor and sensory disorders are found together, there is much more probability of their being followed by atrophy. In other words, double lesions of the reflex arc are more often accompanied by trophic disorders than are simple lesions. The conclusion to which the author leads is that muscular atrophy is the result of the simultaneous impairment of sensory functions on the one hand, and motor and vasomoter functions on the other hand.

Rupture of the Esophagus.

E. J. McWeeney, in the Lancet for July 21, as reported in the Laryngoscope for January, records a case of rupture of the esophagus which appears to have been simply due to vomiting.

It is particularly interesting, not only from the full post-mortem report given, but because of the histological report of the margins of the torn esophagus. Particulars are then given of sixteen cases, and the author comes to the following conclusions:

Age.—Mostly men in the prime of life, the average being forty-two.

Alcoholism.—This seems to be a predisposing factor.

Vomiting.—In every case tabulated the accident appears to have occurred either during vomiting or retching.

Symptoms.—There was a feeling of something having given way, pain, collapse, dyspnea and subcutaneous emphysema.

Duration of Life.—In one case seven and a half days; on an average seventeen hours.

Position and Shape of Rupture.—Generally a prolonged slit, just above the diaphragm.

Etiology.—After a careful study of existing data the author arrives at the conclusion that the two main factors are (*a*) softening of the coats and (*b*) sudden increase of pressure from within. The softening is due partly to intravital digestion and partly to inflammatory infiltration. The intravital digestion is to be accounted for by (*a*) circulatory disturbance which in the author's case took the form of venous thrombosis, and (*b*) prolonged sojourn of peptic matters in the gullet from prolonged retching.

Mosquito-Screened Houses vs. Quinine.

According to the Medical Record for January 5, in the Jour. of Trop. Med, for December 15th, A. H. Hanley says that although it has been proved that the use of the mosquito net on the Campagna prevents malaria, any one going to Southern Nigeria and expecting to steer clear of fever by its at night will be disappointed. The anopheles here attack both by day and night. In the author's practice he has had to take long journeys in a boat at night, and for twenty-six miles has been exposed to the attacks of mosquitos and other pests, but thanks to ten grains of quinine taken either when starting, or on his arrival, has for years escaped fever. He cannot speak too strongly of quinine as a prophylactic, and he deprecates the tendency to put the quinine bottle aside and depend on the mosquito net, which used only at night confers but partial protection.

Carbonic Acid Gas per Rectum in Pertusis.

In Pediatrics for November, as quoted by the American Journal of Obstetrics for January, G. Legrand Kerr reports a number of cases in order to call attention to a means of possible relief and alleviation in those cases of pertussis where there is a complication or, more particularly, a drug intolerance. While the results have not been uniformly satisfactory, there has been enough success to warrant a more extended trial. The technique is simple and as follows: A wide-mouthed bottle of at least one pint capacity and provided with a tightly fitting cork is perforated through its centre so as to admit a glass tube, which is adjusted so that the end reaches half-way up to the bottom of the bottle. To the ex-

ternal end of the tube are attached about three or four feet of flexible rubber tubing. To the free end of this is attached an ordinary hard-rubber nozzle, convenient for rectal injections. The bottle is filled one-third with water in which have been dissolved about six drachms of bicarbonate of soda. To this are added about four drachms of tartaric acid crystals. The bottle is now kept stationary, and as the tartaric acid dissolves slowly the gas is liberated at the proper rapidity for administration. The rectal tube being inserted, the gas is given for from five to ten minutes, according to age of child. Two or three treatments daily are sufficient, preferably given between meals. Ephraim explains the effect as the result of the increased quantity of oxygen which reaches the air vesicles, there to be exchanged for the larger amount of carbonic acid contained in the blood in consequence of absorption from the rectum.

Exsection of a Large Portion of the Abdominal Wall in an Operation for the Radical Cure of Umbilical Hernia.

J. B. Bulitt, in the Annals of Surgery of November 10, Medicine for January, describes the case of a woman 39 years of age who had a pendulous abdomen. It hung down like an apron on the thighs, the lower portion being on a level with the perineum when the patient was lying down, and two inches below this when standing. A study of the case showed that the peculiar condition was due to an umbilical hernia. Upon operation the diagnosis was confirmed; the contents were found to be mostly omental. The contents of the hernial sac were returned to the abdomen, and the opening in the abdominal wall closed in the usual way, with the exception of the skin and superficial fascia. The lower end of the incision in the skin and superficial fat of the abdominal was extended toward each flank, the lower portion of the incision being joined by a transverse cut. In this way several pounds of fat was removed, after which the edges of the incision were united in the usual way.

Leucocytosis in Whooping Cough.

According to the Maryland Medical Journal for January, Meunier, in Archiv. de Med. des Enfants, says that in pertussis of children there is a constant leucocytosis which far exceeds the leucocytosis which is found in other afebrile affections of the respiratory tract, due probably to a specific virus associated with the disease. The leucocytosis is found comparatively early, even before the clinical symptoms are well marked; reaches its height during the periods of the paroxysms, and then gradually subsides as the stage of the decline of the disease progresses. In the beginning of the convulsive stage the number of leucocytes averages 25,000, and may reach 40,000. Complications, as otitis, bronchitis and bronco-pneumonia, seem to have no influence on the number of leucocytes. The increase of white cells in both relative and absolute, more intensive in younger than in older patients. The chief increase is in the lymphocytes, but all forms are increased to some extent. While the cause of the leucocytosis is unknown, it is prabably due to the intense congestion of the tracheo-bronchial glands. The constancy of the leucocytosis in pertussis, its preponderance over all other spasmodic respiratory affections, and its early appearance, before the typical paroxysms, make the blood examination a valuable aid in differential diagnosis and a decided advantage in prophylaxis in schools and hospitals.

Malaria.

In discussing the diagnosis of malaria, H. Stuart MacLean in the Clinic Bulletin for Nov.-December, says, that owing to the variety of diseases which simulated and are simulated by malaria the question of differential diagnosis is a far-reaching one.

But he holds that the examination of the blood affords ready means of distinguishing and thereby the matter is considerably simplified.

Perhaps one of the greatest difficulties now lies in rcognizing grounds for suspectting malaria. For instance, a patient is seen with a history of pelvic tumor, pain and fever, which may be remittent or intermittent. The question as to whether the case be one of purulent inflammation, or some ovarian lesion with complicating malaria infection, is of great importance to the surgeon, who perhaps can ill afford to wait twenty-four hours to note the effect of quinine. Likewise in that class of cases which are seen so often in the eastern portion of Virginia, and which are undoubtedly atypical typhoid fever, the resemblance to malaria in some of its forms is very striking, and can only be differentiated by a blood examination for the plasmodium and Widal's reaction. To the physician who has the time to personally make the necessary blood examination there is no work in clinical diagnosis which yields such strikingly gratifying results as to detection of the parasites in a case of malaria. It requires a degree of aptness, however, which

is attainable only after considerable practice and the failure which comes at first must not discourage. It should be borne in mind that there are seen in the blood distorted and necrotic red corpuscles which are readily mistaken for the the parasite, and also that occasionally the parasites will not be found in the peripheral circulation during the chill. In these exceptional cases the presence of pigment-bearing leucocytes, or leucocytes containing parasites or fragments of red corpuscles, are equally diagnostic, and close search will usually reveal an occasional small hyaline parasite.

Oxygen and Steam Combined with a Special Inhalation Mixture in the Treatment of Pulmonary Diseases.

Clement A. Penrose, in the Johns Hopkins Hospital Bulletin for November, as quoted in Medicine for January, has found that oxygen heated and mixed with steam is more readily absorbed and less trying to the throat and tongue, and consequently more agreeable to the patient, than pure oxygen. Passed through boiling water to which has been added creosote, oil of turpentine, and compound tincture of benzoin, it has a marked antiseptic effect on the mouth and tongue. He has found that inhalations of this kind are very useful in pneumonia.

Three cases are reported, two of which were of purulent bronchitis, one in an infant, and the third a case of pulmonary tuberculosis. Both of the case of bronchitis were cared, and the patient with tuberculosis was greatly improved. In the latter case the sputum rapidly lessened and the pus organisms disappeared. The physical signs all disappeared from the chest with the exception of consolidation. In the four months he was under treatment he gained twelve pounds. The power of oxygen in pulmonary disorders is admitted, and its beneficial effect is enhanced by being combined with steam and a vaporous inhalation mixture. Inhalations, to be efficient, should be systematic and should last ten or fifteen minutes. Indispensable adjuncts are breathing exercises and general gymnastic work.

Pregnancy and Purpura.

According to Obstetrics for January, Loebell in Der Frauenarzt, states that he had recently an opportunity to study the complication of purpura with pregnancy. Previous opinions as to this coincidence has differed widely. Phillipps, for example, sees in the purpura of pregnancy a harbinger of death of the fetus and even of the mother through post partum hemorrhage.

But Schanta maintains, on the other hand, that the hemorrhagic diathesis exerts no influence on pregnancy.

The patient in question was 30 years of age, the mother of two children. She had already suffered from menorrhagia, for which no adequate cause could be found and which had brought about anemia. Pregnancy appeared to interrupt this state of affairs, and the patient was then ordered to especially avoid physical exertion, which order she violated by taking a long bicycle ride. Uterine hemorrhage promptly reappeared and rest in bed was ordered. The patient continued to disregard the orders of her physician, and in addition to the metrorrhagia, which was persistent, symptoms of a general affection became apparent. There were pains in the joints of the lower extremities, epistaxis, blood-tinged saliva, and, finally, purpuric spots and ecchymoses. Abortion set in on the fourth day of the general disturbance. The purpuric phenomenon disappeared after a short course of moor baths.

The Operative Management of Hip-Joint Disease: A Critique.

A. F. Jonas read this paper, in which, according to the Medical Record for January 12th, he drew the following conclusions: 1. The aim of the surgeon should be radical in the removal of all affected structures and the preservation of all healthy bone. 2. The desire to preserve the greatest amount of healthy bone and consequently to insure the best possible joint function, made early incision imperative. 3. To insure the best possible function meant not only the early evacuation of intra-articular tuberculous products and the removal of diseased structures, but implied a most thorough disinfection. 4. The most effective disinfection method known at the present time was the application of pure carbolic acid and alcohol. It formed one of the most useful adjuncts. 5. The continued retention of the femoral extremity in the cotyloid cavity, which was necessary to insure good function, reqnired the greatest possible obliquity of the upper end of the bone. This could be secured only by preserving as much of the neck as possible. When a portion of the neck was destroyed or must be removed, a certain obliquity could be obtained by removal of the trochanter major. 6. To insure permanent usefulness of the hip joint, long continued mechanical correction by means of a portable extension brace must

be insisted upon. 7. Excision of the femoral head, neck, and trochanter must be avoided when possible.

Some Cases of Aortic Aneurism Cured by Injections of Gelatin.

The unseccessful cases which have been reported are reviewed by Rossini (Bolletino delle Cliniche, Medical Standard for January) and attributed generally to bad technique, especially septic infection, and failure to enjoin the repose and other hygienic principles required. Rossini reports four cases in which good results followed, both as to subjective and objective symptoms. He uses a solution of either 1 percent. each of gelatin and chloride of sodium, or 2 per cent. of each to 100 Cc. of distilled water and sterilized water. The solution should be carefully sterilized and renewed at least every two or three days, otherwise you run the risk of causing a fever, preceded by rigors and terminating in profuse sweats—lasting maybe six or seven days. With a sterilized solution, you do not have the least general reaction or other disturbance on the part of the patient. Injections should be given daily of from ten to twenty Cc. The number will depend upon the disappearance or at least notable diminution in the aneurysmal symptoms. The gelatin is absorbed and acts by favoring the coagulation of the blood. The efficacy of the gelatin will be increased by combining with it administration of iodin preparations and a special diet. Enforced rest is necessary during the treatment and for some time afterwards, in order to give time for the coagula formed in the aneurysmal sac to become firm and adhere closely to the sides.

Source of Oxalic Acid in the Urine.

The Dietetic and Hygienic Gazette for January says that the question as to the source of the oxalic acid found in the urine has not yet been satisfactorily solved. It quotes Lommel in the Deut. Archiv. f. Klin. Med. as saying that the oxalic acid excreted by the kidneys seem to be derived only in small part from that introduced into the organism by the food. More than one hundred analyses made by this investigator under varying conditions of diet failed to show that the amount of oxalic acid excreted was greater after a mixed or a vegetable diet than after a diet free from this salt, i. e., one that consisted chiefly of meat and bread. By far the greatest part of it is formed in the body itself, for even during absolute abstinence from foods containing oxalic acid this substance appears in the urine in considerable quantity—about 30 milligrams per day.

When oxalic acid has been ingested in large quantities with the food, only a small fraction appears in the urine and feces. Lommel believes it to be highly probable that the salt is for the most part decomposed during its passage through the organism, it being possible that a certain proportion is destroyed on reaching the intestine. The excretion of oxalic acid bears no direct relation to the disintegration of albumin; the introduction of food rich in nuclein, however, causes, besides an increase of uric acid, a heightened excretion also of oxalic acid. Food containing much gelatin increases likewise the output of this salt.

Ovarian Grafting.

In the Medical Record for January 19th, Robert T. Morris gives some notes on several cases of ovarian grafting. He reports twelve cases in his own experience, and in six cases the procedure was followed by good results. The ovarian graft was transplanted into the broad ligament and was procured from other patients operated on about the same time. He considers the operation no more dangerous than a simple uncomplicated laparotomy. Such grafting not only prevents the symptoms of the menopause, but we may reasonably expect pregnancy in a certain per cent. of the cases.

Pulmonary Hemorrhage.

In Merck's Archives for January, Wm. J. Robinson discusses the rational treatment of pulmonary hemorrhage.

An outline of his treatment and management is as follows:

Relieve the patient's intense anxiety by a few kind and encouraging words; unloosen or remove his clothing, and put him in a semi-recumbent position.

Inject a quarter or a third of a grain of morphine combined with 1-120 to 1-60 grain of atropine.

You may also give a teaspoonful of common salt dry on the tongue, or 20 to 60 minims of aromatic sulphuric acid, diluted with a small quantity of water.

Order an ice-bag on the chest.

If the above measures fail to check the hemorrhage within a short time—half an hour or so—you must cord the extremities; not too tight, but sufficient to prevent the return of the venous blood.

Do not under any circumstances give ergot, or alum, gallic and tannic acids, or any other local astringents. The first has no effect as an hemostatic except indirectly

in uterine hemorrhage, and by raising the blood pressure in the pulmonary circuit hinders thrombosis. The local astringents put into the stomach can have *no* effect on the bleeding vessels in the lung, and are injurious by irritating the stomach, causing nausea and vomiting and including constipation.

Insist upon absolute mental and physical rest, upon a scanty, nutritious and chiefly fluid diet, and relieve constipation either by epsom salts or by enemata.

As a prophylatic against further hemorrhages; make the patient consume large amounts of gelatin, prepared in various forms.

Mild degrees of collapse are to be left alone; in severe collaps, administer camphor (hyperdermically) and nitroglycerin; also strychnine (do not give digitalis). Besides, several hot-water bottles are to be applied to the lower extremities.

It sometimes becomes necessary to resort to enteroclysis of large amounts of saline solution; or the latter may have to be injected subcutaneously or intravenously.

Prolapse of the Rectum.

Balassa, in Wiener Med. Woch., as qouted by Postgraduate for January, reports an interesting case of prolapse of entire rectal wall. He condemns indiscriminate surgical interference for this trouble. The patient is a woman, 24 years of age, who had a prolapse since her eighth year. Actuated by motives of delicacy, she failed to reveal her ailment to the family physician, but having in the meantime married and miscarried twice, the condition growing worse each time, she submitted to an examination, and following that, to treatment. A course of tonic treatment was at first instituted, and the patient instructed to prevent the prolapse by pressing pieces of gauze in an upward direction, at the margins of the anus, during defecation. The mucous membrane of the rectum was cauterized with a four per cent. solution of silver nitrate every day. At the end of two months there was no recurrence, and at the present time she is perfectly well.

Vaccinia.

C. L. Mengis in the Mississippi Medical Record for January gives a general discussion of the subject of vaccinia.

He divides the normal eruption in vaccinia into five periods, viz:

Period of incubation, lasting three days, the seat of inoculation becomes reddened and swollen.

Period of eruption, occurs on forth and fifth days, a reddish elevation is seen, the epidermis becomes raised, forms a white circle in center, with the center umbilicated.

Period of secretion. Sixth to ninth days inclusive. The papule enlarges, and a vesicle forms, flattened and umbilicated. On eight and ninth days, the sore matures. If the vesicle wall is punctured, a transparent lymph oozes, which must be used for inoculation.

Period of desiccation, tenth to fifteenth days inflammation subsides, epidemis becomes wrinkled, and scab forms, beginning in center.

Period of cicatrization: eighteenth to twenty-second day. The scab dries and falls off, leaving a deep sore, first red, then a pearly white color.

Coincidently with vaccinia, two diseases may occur; vaccinal eczema, especially in scrofulous children; vaccinal miliaria; appearing in successive crops. The secondary infections liable to follow vaccinia are: phlegmons, due to pas germs; erysipelas, due to contamination of instrument, or absence of asepsis, appearing about second day of eruption, and lasting till disiccation. Septicemia has been occasionally observed; vaccinal syphilis has followed inoculation with human virus.

In this enlightened age, possessing as we do, a complete mastery over the disease, it seems sheer folly, that year after year, we are visited by smallpox. There is only one rational method of stamping out this pestilence, compulsory vaccination of both white and black, and until that is enforced, as long as there is a field for invasion, we must content ourselves with the inevitable annual visitation of variola, and endanger the lives and business of a community, because of the prejudices, marrow-mindedness, or ignorance of the single individual.

Tetany Following Intoxication

F. Dammer (Munch. med Woch., Nov., 13.) Medical News January 12th, reports the case of a patient who was treated with male fern and calomel for tapeworm and who, soon after the expulsion of the head developed typical symptoms of tetany with both Trousseau's and Chovstek's symptoms present. Since the ordinary causes of tetany were absent and since calomel has never been known to cause tetany. it was but proper to ascribe this to intoxication with male fern, which not rarely caeses nervous symptoms of a less-pronounced character

Ventral Hernia Following Abdominal Section.

B. Brindley Eads in the Annals of Surgery for January says that 15 per cent. of all patients upon whom laporotomy has been performed, if examined five years or more thereafter, will be found to be suffering from post-operative hernia.

In regard to the incision he lays down the following principles:

The length is largely dependent upon the thickness of the superficial fascia; it must be sufficient to allow free access to the muscles whose functional integrity is essential to success.

The length must be relatively greater when muscular fibres are to be separated instead of divided.

It must vary with the pathological condition for which the operation is performed.

An opening of sufficient size must be secured for thorough exploration and to obtain the requisite degree of precision and rapidity in manipulation.

A long incision through the skin and superficial fascia does not predispose to hernia.

It lessens the mortality by providing ample space for the protection of surrounding viscera.

It lessens shock by diminishing the time required for the operation, and also the duration of the anæsthesia.

Therefore the rule should be: Let the incision be long enough to provide every facility for thorough work through muscular fibres and nerves which have been separated rather than divided.

In cases of appendicitis without suppuration where the wound can be closed without drainage he thinks McBurney's incisoin is the best but for suppurative cases he has devised another method of approach.

This incision overlies the outer border of the cæcum and leads directly to the appendix. It is slightly curved outward and downward, crossing an imaginary line drawn between the anterior superior iliac spines. The centre of this curve is from an inch to an inch and a half to the inner side of the right superior iliac spine. The skin and superficial fascia are incised for about two inches. This freely exposes the aponeurosis of the external oblique, which is separated by means of the dry dissector, or the handle of a scalpel, in a direction parallel to its fibres, and well retracted. This brings into view the transversely arranged fibres of the internal oblique and transversalis muscles and the twelfth abdominal, iliohypogastric, and possibly the ilio-inguinal nerves, all of which are retracted in order to reach the transversalis fascia, which, together with the peritoneum, is divided transversely. The advantages to be gained by this incision are:

1. It provides easy access to the diseased area.

2. It enables the operator accurately and securely to protect the peritoneal cavity from infection.

3. It lessens the liability of breaking down the inner limiting wall of adhesions.

4. It affords a better opportunity to open the abscess cavity from the outer side.

5. It favors drainage.

6. It has not been followed, in the author's experience, by either appendicular fistula or post-operative hernia.

The urgent necessities of the case may require division of the muscular fibres, but the experienced operator, conscious of his ability to deal with whatever he may find within, will seek to establish, step by step, a living innervated muscular barrier against ventral hernia, the most important sequel to surgery of the appendix.

Want of space embarrasses the operator, and should not be tolerated, because at any time during the progress of operation he can enlarge the opening along anatomical lines to a sufficient extent to approach accurately any abscess cavity in the iliac fossa, or to make any other manipulation that may be required in the exposure and removal of the appendix.

Typhoid Feeding.

In the Cleveland Journal of Medicine for January, J. B. McGee says that so much stress is placed upon feeding in typhoid fever, that we are apt to forget that many cases really require far less food than is presumably necessary. "Feeding fevers" is certainly a correct practice in a general way, but as a routine may occasionally prove harmful, especially in those cases in which abdominal symptoms are pronounced, and in which perhaps the assimilative power of the digestive glands is inactive or impaired. If the patient desires and can appropriate the food, it may be given; but it is a question whether it is well to insist on his taking it when he shows a decided repugnance to it. While we are aware that theoretically a certain number of heat-units are necessary to sustain life, yet practically we often observe that this amount during a febrile course appears unnecessary. The writer has seen cases in which harm has followed the free use of a liquid diet, and can recall no instance in which he has regretted the administration of a diminished amount, but

has frequently been surprised at the small amount of nourishment upon which a typhoid patient will proceed to recovery. In ordinary cases at least, if thorough quiet be maintained and water be taken freely, he rarely feels any special apprehension from this source whether the patient drinks several pints of milk a day or only one. It has been his experience too, contrary to what might be expected in those who take relatively little nourishment, that cardiac weakness is not especially more common, nor is convalescence more prolonged. It is his opinion that the tendency is rather to overdo feeding, and that here as elsewhere the individual case is the special study.

Tuberculosis.

In the Medico-Legal Journal for December, E. Mather gives some ules for the prevention of tuberculosis. He holds that it is in all respects infectious, curable and capable of restriction. Every State should compel registration of every case of tubercular disease.

Those affected with tuberculosis should receive circulars of information as to the nature, communicability and sanitary care of patients, and instructing those attending them.

That instructions to the parties in charge of the patient, about keeping dogs, for dogs will lick up all expectorate about the premises, the State should therefore examine all pet animals.

The instructions should be given on all subjects on various animals and chickens, ducks, for these all pick up the various articles as well as expectorate.

That the proper instructions as to the nature of contagious and infectious diseases, and also the practical methods of their control should be given to all senior pupils in public Grammar schools and other buildings.

That all owners, managers, trustees of public places and for entertainments, including schools, churches.

That all public carriers and men ir public should be required to prevent contamination in any public building, halls and conveyances, and to see and enforce disinfection of them.

That the hopelessly ignorant, wilfully careless and vicious, affected with tuberculosis, should be properly isolated, sanitariums, hospitals, or tents provided by the State, or qualified persons for such cases.

That the climate for such cases is a consideration. We will take the climate of Northern Wisconsin, such to be recommended for phthisical patients, for its pure air, due to its frequent showers, and at the same time mostly dry, because the sun is always shining immediately after a shower very hot. Again the air is ladened with the frequences of the moods.

These cases should be sent out of our large cities into open air places, open tents; open tent life will improve their health; good water and pure air.

That all parties known to be suffering from place to place should notify physician or health officer of their removal to another State or city, and premises should be seen and disinfected with all care.

Tuberculosis of the Brain in Children.

According to the Archives of Pediatrics for January, Leone Maereto writes (Riforma medica) that tuberculosis of the brain is not stated with sufficient elaboration in the text-books on children's diseases, and is clinically often confounded with tumors of the brain. The writer describes two cases of tuberculosis of the brain in children which presented characteristics that are peculiar to this lesion. In both cases there was an hereditary predisposition to tuberculosis. One had tuberculous lymph nodes, the other a chronic bronchitis which remained after convalescence from pertussis. In children, lesions of cerebral vessels, parasitic tumors, or neoplasms properly so called are so rare in the brain that in the presence of severe cerebral symptoms, diffuse or localized, we can make the diagnosis of tuberculosis with safety, if we exclude injury to the brain. Localization of the lesion is often possible from the character of the paralysis, ophthalmoplegia, etc.

Tonsils as Portals of Infection.

Julius Ullman in the Medical News for January 26th, has an article on the tonsils as portals of injection.

In the course of the paper he shows that the normal tonsil has a physiological function, probably protective to the organism.

That being in itself often diseased, the physiological function of the tonsil is impaired and that instead of being protective, it is the nidus for the growth and distribution of pathogenic organisms and their poisonous products into the system.

That many grave and fatal general infections have their origin in the tonsils.

That, if the exanthemata, especially scarlatina, are of bacterial origin, the tonsil acts in part as port of entry.

That acute articular rheumatism and the diseases often associated with it, endocarditis and chorea, in a great majority of cases are due to the action of attenuated bacteria,

their toxins are both entering the general system through a diseased tonsil.

That in rare cases of typhoid fever in which no intestinal ulcerations can be demonstrated, the similarity of the tonsillar tissue and Peyer's patches suggests the portal of entry of the Eberth bacillus into the tonsil.

That scrofulosis is often associated with diseased tonsillar tissue and that the tubercle bacillus often enters the system via the tonsils.

That the tonsil is too little examined at necropsy and that much light might be shed on fevers of uncertain origins by bacteriological and histological examination of it.

Tuberculosis of the Lungs Treated by Compression.

In the Journal of the American Medical Association for January 19th, A F. Lemke discusses tuberculosis of the lung treated by compression with nitrogen after the method of Murphy. He gives a record of some experiments on dogs and concludes that tuberculous lungs after compression show much fibrosis in and about the foci of disease; hence, extension from these foci is less likely to occur.

Tuberculous lesions probably never heal by resolution, always by cicatrization—this is particularly true of lung tuberculosis. Hence, in attacking them it is rational to further the natural tendency to cicatrization.

The danger of pulmonary tuberculosis does not lie in the presence of one or more foci of the disease, but in a dissemination of the infection throughout the lungs or the body generally.

Healing is probably, as Cornet puts it, altogether the result of tissue changes which inhibit or diminish the absorption of proteins derived from the bodies of tubercle bacilli.

Areas of healed tuberculosis may consist of: Scars, perhaps enclosing caseous or calcareous material, or of cavitives lined with a thick wall. Kurlow and Green (Cornet) have demonstrated that in areas of healed tuberculosis made up entirely of scar tissue or of scar tissue enclosing calcareous material no virulent bacilli exist.

Tuberculosis in the lungs spreads either by continuity and contiguity or by dissemination of the virus through, 1, the air-channels; 2, lymph-vessels; 3, blood-vessels.

Good effects of compression, locally, are brought about by the limitation of areas of disease already existing, by favoring fibrosis in and about these areas; by occluding the avenues of dissemination of the virus, and by compressing cavities to enable them, mechanically, to heal.

Other effects of compression are due to rest to the organ as a whole, emptying of secretions, prevention or diminution of absorption of toxic bodies, prevention of secondary infections, the diminished tendency to hemorrhage.

There is no evidence that fresh tubercles can develop in a compressed lung.

Pleural adhesions are less common than might be supposed from a study of material in the dead-house. The lung may retract in various directions on account of circumscribed areas of adhesion.

Healthy lung tissue may be compressed for a year or longer and retain its capacity for expansion upon removal of pressure.

The actual risk of the operation of intrapleural injections of nitrogen is very slight. No accidents have occurred since the first report was made.

Subcutaneous emphysema may easily be avoided by using the intercostal compress.

Uses of intrapleural injections of nitrogen: 1, curative in pulmonary tuberculosis for reasons mentioned above; 2, palliative—to prolong life for weeks or months, though the disease be too extensive to make recovery probable; to diminish fever and expectoration; 3, to check pulmonary hemorrhage; 4, to compress cavities, tuberculous and others, and establish mechanical conditions that will permit their healing; 5, to compress the lung just prior to surgical operations in which the pleural cavity is to be freely opened and to determine presence or absence of pleural adhesions before opening pleural cavity to drain abscesses or bronchiectatic cavities, cysts, etc.

Tuberculosis of the Middle Ear.

Alfred Bruck, in the Journal of Tuberculosis for January, has an article on tuberculosis of the middle ear. The per cent. of cases in which the ear is affected varies with the observer. Suppuration from the middle ear can only be considered as absolutely tubercular when the bacilli are found in the discharge. The prognosis he says is almost always bad. As to treatment it is of importance to improve the patient's general condition, for the discharge a douche of boiled water twice daily, following by tamponing with sterile gauze. If the suppuration is fetid he recommends 4 to 6 drops of formalin to one-half pint of luke-warm water used with the balloon syringe. If the drum membrane is badly damages an antiseptic powder is better, using after

washing out and carefully drying the ear. For granulations he uses absolute alcohol, dilute at first but gradually increased to full strength. For larger granulations use nitrate of silver, chromic acid fused on the end of a probe or the sesqui-chloride of iron. The polypi-like tumors are to be removed with the snare. Radical operative measures should not be done unless the patient's general health is good. In children and in cases of primary tubercular mastoiditis a radical operation may produce a cure.

Rapidly progressing destruction of the drum membrane and of the mucosa in patients already much debilitated by their lung affection are hopeless.

Spongyfying of the Labyrinth.

According to J. Holinger in the Laryngoscope for January spongfying of the labyrinth is another name for progressive deafness.

In the course of his paper he shows that sclerosis and similar words to indicate this disease of the ear are without meaning, pathologically or clinically.

Spongyfying of the labyrinth is a well-defined disease, clinically and pathologically.

The diagnosis can be made in the living in a comparatively early state, from the history and the trio of functional tests:

(*a*) Short or negative Rinné.

(*b*) Increase in hearing of low sounds (A) by bone conduction.

(*c*) A large part, one to several octaves, of the lowest sounds cannot be heard by air conduction.

The prognosis as to life is good; as to recovery of hearing bad.

The treatment must applied very judiciously. We can judge of and compare the effect of a treatment in a given disease only when we are able to make an absolute diagnosis of the disease. Patients who have been treated from the start of the disease are often, after years, in a worse condition as to their hearing than others who have been left alone.

Rheumatic Fever in Throat Affections.

St. Clair Thomson. in the Laryngoscope for January, discusses the relationship between throat affections and rheumatism.

He says it is undoubted that a certain number of cases of acute rheumatism are preceded by an angina in a proportion varying from thirty to eighty per cent.

Both rheumatism and angina have many etiological points in common—season of year, cold, wet, fatigue, depression, vitiated air, etc.

The connection of angina and rheumatism, though undoubted in a number of cases, is not yet clearly established.

The tonsil may be the port of entry of the rheumatic virus, and this even although the naked eye appearance of the throat gives no indication of its being affected.

The particular affection of the throat which is associated with rheumatism is not yet established. Apparently it is not peritonsillar abscess (quinsy.)

Peritonsillar inflammation does not appear to be arrested by the administration of anti-rheumatic remedies. Many cases of parenchymatous and lacunar tonsillitis, on the contrary, are considerably benefitted by the administration of salicine or salicylate of soda. That this action proves the rheumatic nature of the disease cannot yet be accepted.

The question requires further research in two directions: One in differentiating the various forms of angina, and settling the one which is associated with rheumatism; the other in further research to discover the true nature of rheumatism.

Static Electricity.

In the Journal of Electro-Therapeutics for February, Wm. B. Snow gives several reasons why the static current is better for X ray work than the coil.

He says that the machine does not have the same tendency to shorten the life of the tube, due to the fact that the radiance is produced by a current of such low amperage that the heat production is reduced to a minimum, with practically no danger of melting the metal parts.

The radiance is far more constant and uniform, not having the flicker characteristic of the coil apparatus, which feature is invaluable in making fluoroscopic examinations of the chest.

In the case of the static machine there is no coil to burn out, a saving of suspense and expense.

Syphilis of the Testicle.

In the Alabama Medical Journal for January, Dyer F. Talley reports an unusual case of late syphilis of the testicle.

The patient was 41 years old, contracted the disease in 1897 and was given specific treatment for a year when all symptoms having disappeared he stopped the treatment.

One year after treatment syphilitic rupia appeared on left leg and swelling of the left testicle.

He took a widely advertised quack medicine for a year, growing worse all the time. During the summer of 1900 the scrotum ulcerated through and the testicle protruded through the opening. In this condition he came under professional treatment and as there was no other chance the testicle was removed and the patient placed upon specific treatment, large doses of the iodides being given.

The patient made a good recovery.

Two cuts show the condition of the patient before and after the operation, in the latter case he is represented as standing on his head, but it is likely that it was the printer who was upside down.

Treatment of Certain Chronic Abscesses by Simple Aspiration.

The St. Louis Medical Review for Jan., 5th, says that W. H. Bennett, records three cases in which he used simple aspiration for abscesses instead of the modern method of free incision and drainage. His results were good, and in one case the patient, a very busy man, was not kept from his business a day. Sterilization is easy: there is no complicated dressing, which is of especial value in treating patients in moderate circumstances. Although an old method, it is certainly not antiquated.

The Radical Cure of Inguinal Hernia in the Female.

According to the New York Medical Journal for January 12, William B. Coley, in Annals of Surgery for December, says that while most of authorities agree that inguinal herniæ in women and children are more amenable to cure by mechanical treatment, the author's experience has led him to believe that the difference is very slight. As to the opinion of Kelly, that removal of the sac is of little importance, the author believes such an opinion erroneous. The transplantation of the round ligament is never indicated. In the author's cases—one hundred and twenty-three in number—the method employed was Bassini's, the single step of transplanting the cord being omitted. Rubber gloves are advocated by the author, and in support he cites the bacteriological findings in 35 examinations of the nails and hands of surgeons. Of 68 cases in which portions of the skin were removed from the field of operation just before the primary incision was made, 53 were found to be sterile. Chromicized cat gut or tendon may be rendered perfectly sterile, and the author prefers it to silk, silver wire, or silkworm gut. In the operation itself the cutting of the internal oblique muscle is not only unnecessary, but likely to weaken the canal. There has been no mortality in the author's cases. Seventy-three patients were under 14 years of age, and 50 were between 14 and 70 years. In 8 cases suppuration occurred, limited to stich-hole infection. The average time in bed was eight days, departure for home was permitted in two weeks, and a spica bandage was kept on for two weeks longer. Not a single relapse has been observed. The prognosis, from these notes, would seem to be better in the female than in the male. In 545 cases of inguinal hernia in the male, operated upon after Bassini's method by the author, there have been 6 relapses.

Sudden Death In Childhood.

In These de Montpellier, as reported in the American Journal of Obstetrics for January, M. Paravicini considers sudden death to be rather frequent in early childhood, occurring toward the end of infectious diseases. It occurs from convulsions, spasm of the larynx, syncope, and pulmonary congestion. To guard against it we must, in the first place, regulate the diet. In the second place, we must use only medicines which are known to be without danger to infants and children. Baumel says that medicines act rapidly and with intensity in early life because of the excessive vitality of the cells of the organism, the shortness of the circulatory system, and the frequency of the cardiac contractions, which cause the drug in a given time to come more often in contact with the various organs than in adults. For some drugs, however, children have greater tolerance than adults. Sudden death may follow the administration of violent emetics. Quinine is capable of producing it. Emetics are absolutely contra-indicated when there is cardiac depression, also in pneumonia. In capillary bronchitis they may be useful, but only when the patient coughs and has a tendency to expectorate, after the disease is cured and the fever gone. They are indicated in gastric disorders, in convulsions, and at the onset of eruptive fevers. Mineral emetics should never be given to a child under 2 years of age. The greatest attention must in all cases be paid to the condition of the heart. In pleurisy, pertussis, pulmonary tuberculosis, thoracic rachitis, Pott's disease, scoliosis, and bronchial adenopathy, emetics must be avoided, because the heart is depressed.

Raynaud's Disease.

According to the Journal of the American Medical Association for January 26, A. Ravagli and M. L. Heidingsfeld presented a patient afflicted with Raynaud's disease before the Cincinnati Academy of Medicine on January 7th. The man was age 24, of German birth, duration of the disease 10 years.

The fingers of both hands were affected about equally. They were enlarged to about twice their normal size, and were chronically edematous; they were very cold to the touch and of a bluish-red color; a few bullæ were present on the phalanges of several fingers, and at the digital extremities of several of the metacarpal bones; these bullæ had a tendency to necrosis; there was diminished sensation to heat and cold. There was no hyperesthesia or anesthesia; no periodicity; involvement of the fingers alone; no direct or predisposing cause such as trauma or exposure to cold. On account of these facts the diagnosis must be held sub judice, with the possibility of the case being a vasomotor or trophoneurotic change, such as chronically cold hands, erythromelagia, or angioneurotic edema. Some improvement has been noticed under intestinal antiseptic treatment.

The Terminal Condition in a Case of Diplegia.

According to the Medical Record for January 5, before the New York Neurological Society, William M. Leszynsky presented a man 21 years of age, in whom the chief feature of interest was a trembling of the hands, which had existed as long as he could remember. Nothing was known of his early history except that he had always been nervous. His mother had died of cancer of the uterus. The trembling had always been more marked on the left side, and his condition was apparently growing steadily worse. On careful examination no disturbance of sensibility could be detectd. There were excellent muscular development on the left side and a spinal curvature, probably arising from the use of one side more than the other. There were no signs of atrophy. There was some asymmetry of the cranium. There was no disturbance of vision, but concentric contraction of the visual field. There was no nystagmus, and the pupils and the fundi were normal. There was a positive tremor when at rest, and a more active tremor on motion. He held the left arm in extension, but close scrutiny showed that all of the regidity was in the extensors. The elbow jerk was elicited only on the right side. Both knee jerks were exaggerated. Ankle clonus had been demonstrated on both sides, though it was much more marked on the left. Dr. Leszynsky said that this man had probably recovered from a paralysis that he had had at one time, and was now suffering from a terminal condition of an infantile palsy. Undoubtedly there was a good deal of functional disturbance added to the organic trouble.

The Extraction of a Gauze Plug, which had been left in the Abdomen and Passed Into the Intestine Seven Years Previous.

According to the St. Louis Medical Review, Chaput, in Rev. des Hop., gives the history of a patient on whom four laparotomies had been performed. In the course of a fifth similar operation, he found a greatly distended intestinal coil, and upon incising the same at the point of apparent obstruction was able to remove a large wad of gauze and to successfully suture the intestine. Before this operation this patient had suffered greatly from colicky pains, but after it was completely relieved. The author says two such cases have been reported and that in one of them this foreign substance passed the anal orifice of its own accord.

The Treatment of Senile Pruritus.

Jaeneche (Centralblatt fur Innere Medicin, as reported in Therapeutic Gazette for January) calls attention to the wearing and harassing nature of senile pruritis and its intractability to the therapeutic means commonly recommended for its alleviation. He suggests a treatment which, though not entirely curative, causes so much alleviation that the patients consider themselves cured.

Jaeneche noted that the regions affected were dry and glazed and ill-nourished, and that on brushing the skin a great quantity of dead and degenerated epithelial cells could be collected. His treatment consists in regular brushing with a soft brush, which removes the degenerated superficial epithelial cells, increases the nutrition of the part, and brings about so much relief that the patients may go for days or even weeks with perfect comfort. The brushing is repeated at first three times daily for from ten to twenty minutes. These treatments are reduced to twice a day and finally once every second day; a longer interval than this should not be allowed to elapse. There is often no improvement for days, nor is there any marked alteration in the nutrition

of the skin. But shortly the patient experiences marked relief, and in many cases is entirely freed from his suffering. It is important that no water should come in contact with the affected regions, since this, though it is followed by a temporary alleviation, renders the treatment by brushing quite futile.

Patients frequently brush with so much vigor that the skin is wounded and bloody and the itching is at first increased in intensity. Lanolin inunctions are serviceable adjuncts to this form of treatment. A number of illustrative cases are reported.

Shall the Antrum be Opened in All Acute Empyemas of the Mastoid Cells?

Snydacker (Archives of Otology, Medical Age) believes the antrum should be opened in all cases of acute empyema of the mastoid cells. The first opening into antrum should merely be exploratory. If no pus wells up, and by inspection no pathological changes are found, the relations of the part should be disturbed as little as possible. The author deplores the action of some operators, where there was absolutely no indication for it, of curetting the antrum and enlarging the cavity, so that the pus is constantly reinfecting the wound. The conservative operator, bearing in mind that the antrum is always more or less involved in purulent middle-ear disease, must convince himself what the condition of the antrum is, and if he finds empyema, or granulations, or polypoid growths, then the cavity should be enlarged, making broad communication with the tympanum. If, on the other hand, he has convinced himself that the antrum is not the seat of danger, he should at once desistfrom further disturbing the parts.

Tuberculous Polyneuritis

Chas. J. Aldrich, in the Journal of Tuberculous for January, reports a case of tuberculous polyneuritis in a man 40 years of age. While conductor of a freight train he was exposed to cold and wet, felt tired and chilly for a week, with dull vague pains in the back and limbs, followed by cough and pain in right lung. On examination the pupils reacted neither to light nor accomodation; were slightly irregular, the left being larger than the right. The elbow-jerks, knee-jerks and ankle phenomena were absent. He had paralysis of the left abducens and double vision. No other paralysis was noted above the hips. The extensors of the thigh and legs were markedly weakened and presented the reaction of degeneration. The bladder power was unimpaired, although sexual function had been absent four years.

Tactile, pain, muscular and temperature sense were natural over the head, arms, trunk and thighs down to a line at the upper border of the patellæ, but below this point all of these senses were less acute than normal. His sense of posture was poor, being unable to stand with eyes closed, and showed general muscular incoordination of the lower extremities. The presence of incoordination in the upper extremities was doubtful. He had suffered much from shooting pains in the thighs and legs.

The optic disks presented no sign of atrophy to opthalmoscopic examination, but the charts of the eye fields showed marked contraction of the field for color, especially for green.

Careful inquiry into his condition from 1891 to '92 and '93 gave conclusive evidence that he had many symptoms of tuberculosis, the infection, however, was stoutly resisted by his previous rugged habit. With the history of the case, its development and its course, we are warranted in pronouncing it one of polyneuritis of tubercular origin.

The Value of Antistreptococcic Serum.

Walton (The Lancet, No. 4025, Therapeutic Gazette, January) notes that in two cases he has observed a genuine remedial action on the part of the antistreptococci serum.

The first patient, twenty years old, became septic from the third day of delivery. On the fifth day temperature was 101 deg. F. and her pulse 130. Ten cubic centimeters of antistreptococci serum was injected, and the following morning there was a distinct though slight improvement, which was dissipated by the evening of the same day. Therefore, a further injection of ten cubic centimeters was ordered, which was follwed by an improvement for two or three days. A relapse then set in, and by the sixteenth day the temperature reached 103 deg. On the next morning ten cubic centimeters of the serum was injected into the right arm. This was followed by a pleuritic catch in the right lung. Two days later sodium salicylate was given, which was followed by a fall of temperature and the recovery of the patient.

The second patient was suffering from diphtheria, but before the diagnosis could be made she was given ten cubic centimeters of the antistreptococci serum with marked benefit to her.

The Supraclavicular Glands in the Diagnosis of Abdominal Carcinoma.

From observations of cases at the clinic of Maragliano of Genoa, Tarchetti (Deutsch. Archiv. f. Klin., Medical Standard for January) comes to the conclusion that the presence of supraclavicular glands on the left side occuring in the course of a carcinoma of an abdominal organ is not frequent, but may be taken into consideration in a suspected case; he finds that the swelling is not confined to cancer of the stomach, but may occur with cancer of the abdomen, of the liver, and perhaps of other abdominal organs (pancreas). It may take place at considerably varying periods before a fatal termination, and may be at a time when it can prove a valuable aid to the diagnosis. Metastases in the supraclavicular region constitutes a rather characteristic clinical picture. Quite often a slight swelling and increase in consistence of cervical and inguinal glands will be present in carcinoma, not depending upon metastases and having no diagnostic significance.

The Technique of Colostomy in the Treatment of Certain Inoperable Tumors of the Rectum.

According to the St. Louis Medical Review for January 5th, Hartmann says that five complications may be avoided by using McBurney's gridiron incision. These are: (1) prolapse of the intestine; (2) cicatricial closing of the orifice; (3) hernia in the vicinity; (4) incontinence of the feces. The technique is as follows: Close to the anterior superior spine an incision is made through the skin and aponeurosis of the external oblique and parallel to the fibers of the latter. The internal oblique is divided by blunt separation of its fibers, and the peritoneum opened for a short distance. A loop of the sigmoid is drawn through the wound, and a roll of gauze thrust through the mesentery. No sutures are used, the intestine opened at the end of forty-eight hours and the gauze roll removed ten days after operation. All of the author's thirty cases have been followed by most satisfactory results, as regards the immediate and remote effects of the procedure.

Topical Applications in Gynecological Practice---Their Use and Abuse.

In the Journal of the American Medical Association for January 12, J. W. Andrews expressed himself as having very little confidence in the utility of pessaries, and in topical applications in gynecological practice. In a large majority of cases of retroversion or retroflexion of the uterus with tenderness in Douglas' pouch, he believes there is some disease of the ovaries and tubes on one or both sides, and this can only be secured by surgical measures. In concluding his paper he expressed the belief that there is no longer a legitimate field for the gynecologist. There is no reason why a good surgeon who can operate well on the abdominal organs should not operate equally well on the pelvic organs. There is no reason why the general practitioner cannot treat catarrh of the cervix, when it exists, as well as he can a catarrh of the throat. He hoped that the routine topical applications in gynecological practice would be relegated to the mistakes of the nineteenth century.

Vesiculitis.

Jas. E. Morrow, in the Medical Age for January 10th, says that in subacute and chronic vesiculitis the only treatment, except in the tubercular form, that is effective is milking or stripping the vesicles. He gives the following method of procedure:

The patient should be required to present himself with the bladder full. It is best to have a small amount of urine passed for comparison. The patient is then made to flex his body at the hips by bending over the back of a chair. The index-finger of either hand, well lubricated with vaselin, is carefully passed into the rectum. It is better to be very gentle with the first examination. lest what is only unpleasant may come to be looked upon as an ordeal. The first effort of the finger in the retum is to locate the posterior border of the prostate; this having been accomplished, it is pushed gently upward and outward and an attempt made to map out the body of the vesicle. It is not always easy, unless it be moderately distended, to distinguish the outlines of a healthy vesicle. In disease, distention of the sac and thickening of its coats make the border readily definable, unless there be a perivesicular exudation. The finger inserted to the limit, firm pressure is made with the tip on the body of the vesicle, and it is then gently stripped, in the direction of the ejaculatory duct. This process is repeated three or four times. The pathological secretion is thus forced on into the prostatic urethra. So sometimes in cases of extreme distention stripping will cause the vesicular contents to flow from the meatus. The patient is not allowed to empty the bladder. If stripping has been successful, the fluid voided will contain masses of altered semen or inflammatory

exudate, which may take the form of cylinders about the size of a knitting-needle, globules, coarse and fine flakes, an amorphous sediment, or there may be only a milky appearance. In some cases a perfect cast of the vesicle has been brought away.

Care must be taken not to use too much force in these treatments; for sometimes an acute inflammation of the vesicle and less frequently of the corresponding epididymis is induced. The writer had the misfortune in one case to cause a moderately acute vesiculitis and subacute epididymitis, either by using too much force or making the interval too short. Then, too, in very chronic cases, care must be taken lest serious hemorrhage be induced. Diminishing tenderness is largely the guide as to interval between treatments. If judgment be exercised as to frequency and force, there should be a steady diminution of tenderness and amount of material expressed from the vesicle; and the inflammatory exudate should be gradually absorbed.

The stripping process promotes a good result, first, by relieving distention of the sac by the pathological material, and thus allowing the muscular coats to regain their tonicity; secondly, where exudation is present, it induces softening and absorption of the exudate.

Wave Current.

In the Journal of Electro-Therapeutics for February, Wm. B. Snow gives the following method of administering the wave current:

Place the patient upon the insulated platform.

Ground one pole of the machine to a gas or water pipe or other direct metallic ground connection. (This is imperative.)

Employ either metal or very wet electrodes—for external applicatien block tin is most suitable.

Take care that no article of clothing or other material is beneath the electrode.

Connect the patient by conducting cord to the side of the machine not grounded (it matters not which pole is grounded).

Close, or nearly close, the discharging rods and start the machine.

Gradually separate the discharging rods until the patient complains of feeling dis comfort, which will be due to muscular contraction, or pain beneath the electrode if inflammation is present. At intervals the length of the spark gap may, in most cases, be slightly increased.

Take care that objects that will draw off the current are not brought near the patient or platform if a long spark-gap is required.

What is Croup?

According to the Indian Medical Record, the conclusions of Langford Symes, as published in the Dublin Medical Journal, are as follows: (1) There is no such true disease as croup, croupy symptons being produced by a variety of different diseases. (2) Severe croupy symptoms are most likely to be due to either diphtheria or laryngismus stridulus. (3) In a difficult case we should suspect diphtheria and treat it as such from the start with antitoxin. (4) Recession and restlessness are the two most dangerous symptoms. (5) As antitoxin reduces the mortality of diphtheria and enables cases to be tided over the crisis with intubation, it may possibly contribute to the future success of tracheotomy. (6) Deaths registered as croup are mainly due to diphtheria.

Treatment of Septic Infection Proceeding from the Uterus.

Abel in Berlin Klin. Woch. for November 26th, as reported by the Journal of the American Medical Association for January 5th, says that bacteriologic examination is of great importance and should be the guide in treatment. Irrigation of the uterus is of very little value, as the fluids do not penetrate into the tissue. Atmokausis is preferable—cauterization with steam. Abel relates instances in which the temperature fell to normal after exposure of the inner surface of the uterus to the action of steam at 110 C. for thirty seconds. The eschar formed was expelled later almost entire. He advocates atmokausis always as a last resort before proceeding to extirpation, reserving the latter for cases of infection in which there are extensive laceratiens of the uterus. Extirpation transforms the dangerous lesion into a smooth wound with a prospect of healing. Infusion of salt solution and inhalation of oxygen are valuable adjuvants.

Yellow Fever and the Mosquito.

Since a number of scientific investigators have traced a causal relation between the mosquito and the transmission of yellow fever, it is interesting to note that this theory was first advanced by Finlay of Havana iu 1891, He was much laughed at and ridiculed for his ideas at the time. In the Medical Record for January 19th, Finlay has an article on the new developments of his theory. The yellow fever board of the army has done much toward putting his idea upon a solid basis. He quotes at length from a paper written in 1891 and traces the course of some cases from an in-

fected vessel in which the disease was undoubtedly spread by the mosquito. The army board has shown that the other sources of infection in this disease are not capable of producing an attack unless we bring in the mosquito.

MISCELLANEOUS.

Joint Meeting of Physicians and Pharmacists.

At a recent joint meeting of physicians and druggists of this State, the following report was submitted and adopted: Pharmacists and those in their employ should positively refuse to prescribe for customers except in cases of urgent emergency. Any person shall be regarded as practising medicine who shall treat or profess to treat or prescribe for any physical ailment or any physical injury to or deformity of another. The law gives to pharmacists no right or authority to diagnose diseases and prescribe medicine therefor, which privilege belongs alone to physicians. Physicians should carry with them or supply to patients emergency remedies only. The substitution of one article for another or one make of an article for another in a physician's prescription, without the physician's consent, is condemned as a most reprehensible practice Whenever a physician, for any reason, objects to the refilling or copying of his prescription, he should plainly indicate his wishes on the prescription. Pharmacists should refuse to refill a prescription or give copies of them when so instructed by the prescriber. Copies shonld not be placed upon containers unless ordered to be placed thereon by the prescriber. Physicians prescribing poisonous substances should add such directions as will indicate the use for which they are intended.

When unusual doses are prescribed, pains should be taken to indicate to the pharmacist that the quantity prescribed is understood. In case of a suspected error or substitution by a pharmacist in the compounding of prescriptions, physicians should always satisfy themselves by conferring with the pharmacist, as to the true state of affairs and in no case should the pharmacist be condemned by the physician, or the physician by the pharmacist, either to the patient and family, or in the press without previous careful investigation. Whenever there is a doubt in the mind of the pharmacist as to the correctness of the physician's prescription or direclions, he should invariably confer with the physician in order to avoid possible mistakes or unpleasantness, and should not attempt to make any changes without such conferences. Pharmacists should never discuss physicians' prescriptions with customers, nor disclose the composition thereof to them.—*Medical News.*

Concerning the Physiologic Function of the Spleen.

Some new light has been thrown on the question of function of the spleen by the work of G. Jawein, which recently appeared in Virchow's Archiv, Band 161, Heft 3. This author tried to ascertain the cause of enlargement of the spleen in cases of acute poisoning and in cases of acute infectious diseases, hoping in that way to get some idea of its normal physiologic function. How well he succeeded may be seen by the results of his work. His work was essentially an experimental investigation with dogs poisoned with chlorate of potassium, chlorate of sodium and with toluylendiamin. He established the fact which, by the way, has been frequently noted by others, that the enlargement of the spleen in these acute cases depends on a destruction of the erythrocytes. By means of the collection of these destroyed erythrocytes in the spleen there follows a hypertrophy and hyperplasia of the pulpic mass. In other words, we see a functional hypertrophy of the pulp from irritative influences. It is a common pathologic experience, and many analogies could be pointed out, The same condition holds true in acute infectious diseases where there is a destruction of the red blood corpuscles and consequently an irritative influence on the splenic pulp with functional enlargement of the whole organ. From these findings it is natural to conclude that the principal function of the spleen from a physiologic point of view is that of a filter for the blood, and that if it has any selective affinity at all for preventing bodily tissue from passing through this self-same filter, its action can be seen with the red blood corpuscles in particular.—*Interstate Med. Jour.*

The Clumbing of Bacilli and Red Corpuscles.

The essential importance of physico-chemical processes in biological phenomena is becoming more and more generally recognized. Indeed, it is along physico-chemical lines that we may look for satisfactory explanations of many phenomena in normal as well as pathological conditions, phenomena the existence of which is made clear, but not fully explained by studies of a morphological nature. And it is probably in

this very field that the new century will witness the most far-reaching achievements in physiology and pathology. Sir Lauder Brunton's simple experiments illustrating the clumbing of bacteria and the formation of rouleaux by red blood-corpuscles show well what a flood of light may be thrown on such phenomena when they are approached from the standpoint of physics and chemistry.

If lucifer matches are covered with hard soap and thrown into a flat trough containing water they float about indifferently, but if the water is acidulated the artificial bacteria are at once drawn together into clumps. If the fluid is made alkaline the clumps do not reform when broken up. On the addition of litmus to the water, the changes in color will indicate the changes in reaction. Artificial blood-corpuscles may be made out of sheet cork cut into discs and loaded on one side with bits of lead so as to float upright. As long ago as 1869 Norris showed that partially submerged artificial corpuscles are drawn together and form rouleaux. If totally submerged they remain separate. If dipped in petroleum they coalece even under water. And Brunton shows typical rouleaux formation by treating cork corpuscles in the same way as he treated matches. These peculiar and interesting manifestations are probably connected with changes in the surface tension produced, and so Brunton suggests that the clumping of bacilli and the formation of rouleaux may be due to the liberation of some fatty substance by the action of corbolic acid. In the case of bacilli provided with flagella, clumping is more complex, because the flagella must be rendered motionless. Whatever the ultimate explanation, these experiments are certainly valuable also as a ready means of demonstrating to students how clumping may be produced.—*Jour. A. M. A.*

Movements of the Mouth and Pharynx in Insufficiency of the Aortic Valves

According to Medicine for January, Hermann Schlesinger, in the Wiener Klinische Wochenschrift of October 4th, had his attention called to this symptom in which there were pulsations in the mucous membrane of the mouth and nasopharynx synchronous with the action of the heart. This symptom has been studied by others; Muller, in 1880, noted pulsation in the mouth and pharynx in a case of aortic insufficiency. The same has been claimed by Huchard, Litten, Andre, Pettit, and Gerhardt. The marked case which he saw led to his study of the same condition in some forty cases of aortic insufficiency. Pulsation was only noted in a few of the cases. To obtain the symptoms, the patient must breathe quietly through the mouth; the posterior wall of the pharynx must be in full view, and this must be accomplished without mechanical depression of the tongue, as this interferes with these peculiar appearances. Very marked pulsation in these parts is only noted in cases in which it is also apparent in other parts of the body, and often the tonsils and base of the tongue take part in the same movement. In ten of the cases the base of the tongue was noted to distinctly rise and fall with each pulsation of the heart. An infrequent symptom is a coincident narrowing of the pharanx and oral cavities. The latter is brought about by a swelling of the tongue. Such a marked appearance was only noted in four of the cases.

Professor Potain, Paris, France.

On the night of the 4th of January Pierre Karl Edouard Potain, honorary professor of the Faculty of Medicine of Paris, member of the Institute of France, and commander of the Legion of Honor, died suddenly at his home in Paris.

Born in Paris on the 10th of July, 1825, he began his medical studies at the Paris school of medicine in 1843, became interne in 1848, and graduated in 1853, passing his thesis for the Doctorate on the subject *Les souffles vasculaires qui suivent les hemorrhagies*. This remarkable work showed what might be expected of Potain, who devoted almost his whole life to the study of diseases of the heart. In 1859 he became adjunt professor, and in 1876 professor of clinical medicine in the faculty of medicine of the University of Paris, and taught for ten years at the Necker Hospital, and from 1886 to 1900 at the Charite Hospital.

His contributions to medical literature on nearly all subjects of internal medicine, but more porticularly on diseases of the heart and blood-vessels, are numerous. His articles in the *Dictionnaire encyclopedique des sciences medicales* are a marvel of erudition, and his book *Lecons cliniques de la Charite*, published in collaboration with Francois Frank and his pupils Vaquez, Teissier, and Suchard, will remain a standard work on diseases of the heart for many years to come. He had probably the largest consultation practice of any one in Paris. His kindness to the pupils, his gentleness to his poor patients, his justice in the examination of students, which was always tempered with kindness, made him one of the most beloved of all the teachers in the faculty of medicine. He was a physician for over

fifty years and a teacher for forty years. Throughout his long career Professor Potain was honored by his colleagues, beloved by his countless patients among rich and poor, and worshipped by his pupils. He had no enemies, and those who knew him could understand why he had none. He deserved the admiration and veneration which were recently manifested anew when he resigned his position as clinical teacher last year and was made honorary professor, and his pupils from all over the world united to present him with a gold medal and a token of their esteem.

In the death of Professor Potain France has lost one of her noblest sons, the medical profession one of its most illustrious members, and the world a good and noble man. —*S. A. Knopf, M. D., in N. Y. Medical Journal.*

"Involuntary Seminal Emissions."

A word to the numerous readers of this Journal upon the above subject will undoubtedly be of interest. Physicians have often been impressed with the apparent uselessness of many of the standard drugs in the rectification of nocturnal emissions. The mental condition of these patients is always deplorable. They drift on the sea of neurasthenia. Gastric oppression is nearly always a prominent factor; headache and backache, irritability, bashfulness, especially in the society of the opposite sex, a feeling of fatigue associated with depression, and in some cases amounting almost to melancholia are predominant disturbances. Under these circumstances give Emissine a trial. It is a positive specific, correcting all the symptoms above referred to with promptness and permanency. Under its use the mental habetude will show an immediate change for the better; the remorse, apprehension and melancholia will be removed; the digestive organs will take on a more heathy action; and the involuntary discharges will be at first lessened, and subsequently be most efficaciously cured. It must be borne in mind that a seminal discharge in one who is practising restraint should occur at least once every third week, occuring oftener Emissine is indicated, and its beneficial influence will become apparent after a few doses. Emissine is neither a quack product, nor a cure-all. Its ingredients are all standard products. Orders received by us from every State in the Union from leading physicians in their locality testify unequivocally to the value of Emissine in the conditions stated. For further particulars see our "ad" elsewhere located.

The Treatment of Enteritis with Xeroform.

In order to test the efficacy of the drug, Dr. Giovannia Petrucci, of the University Clinic of Parma, has treated about forty cases, mostly of acute catarrhal enteritis, with Xeroform alone. The dosage was 0.35 to 0.5 gram (5¼ to 7½ grains) in wafers to adults, and 0.1 to 0.25 gram (1½ to 3 3-4 grains) in gum emulsion for children, at about three-hourly intervals. The remedy was always well borne even by individuals who were greatly weakened by age or disease. There were no noticeable by-effects. In two cases only there was a very slight and transitory nausea immediately after ingestion of the drug. Digestion was undisturbed. Pulse, respiration, and urine remained normal; the fæces became dark brown. The history of a few of the specially severe cases is as follows:

1. Teresa F., 35. Had had enteritis for eight months. It began as a violent diarrhœa, followed by the passage of mucus and blood; pain was marked. Bismuth, opium, astringent injections, etc., did her no good. The pain and diarrhœa returned continually after short intervals of betterment. At Petrucci's first examination, at the beginning of April, he found the patient very badly nourished and weak. The abdomen was tender everywhere, but especially upon the right side. No fever, and no tubercular affection. Urine normal. Xeroform, 0.35 gram (5¼ grains) every three hours was ordered. Next day the dose was increased to 0.4 gram (6 grains.) On the third day there was slight improvement, less abdominal tenderness, and more infrequent stools. Meteorism and borborigmi had almost entirely disappeared in a week. She had two stools daily, and there was no mucus in them. Strength and appetite returned rapidly, and after two weeks' treatment she was discharged entirely cured. The fæces were normal, and all the symptoms had disappeared.

2. Beatrice M., 37. Enteritis for three months; great weakness, anorexia, coated tongue, acid eructations. Frequent diarrhœal stools containing mucus and blood, great tenesmus. Xeroform, 0.3 gram (4½ grains) ordered at intervals of three or four hours. There was a remarkable improvement at once; and after thirty doses the patient was entirely cured.

3. Catterina P., 57. Weakly constitution. Colic, vomiting, and diarrhœa containing undigested food; cramps of the extremities. Treatment: Xeroform 2.5 grams (37½ grains) divided into eight wafers. Cure in two days.

4. Emilia C., 8. Good constitution. Acute intestinal catarrh since three days;

four to five daily diarrhœal stools, violent belly-ache, pronounced meteorism. Directions: 1.2 grams (18 grains) of Xeroform divided into six wafers. Cure in one day.

5. Adelaide C., 49. Acute enteritis since three days. Numerous diarrhœal stools containing mucus and blood; much tenesmus, violent thirst. Directions: 3.5 grams (52½ grains) of Xeroform in ten wafers. Improvement by the second day, cure by the third.

6. Evaristo G., 50. Weak; has suffered repeatedly from malaria. Acute enteritis since two days; remnants of food, mucus and blood in stools; nausea, vomiting, and violent abdominal pain. Ordered 3 grams (45 grains) of Xeroform in nine wafers. Improvement by the second day; cure by the fourth, the patient returning to work.

7. Giovanni G., 69. Has scurvy; numerous extensive cutaneous hæmorrhages and œdema of left foot. Violent diarrhœa and abdominal pain since two days. Directions: 2.5 grams (37½ grains) of Xeroform in six wafers. The diarrhœa was cured in one day.

8. Giuseppe D., 4. For several months had had enteritis; abundant diarrhœa with mucus and blood. Has been treated with bismuth and chalk without result. Ordered 1.5 grams (22½ grains) of Xeroform in ten wafers. Cure in three days.

9. Maria B., 9. Acute enteritis for three days with violent abdominal pain, and four to five passages daily. Ordered 0.5 gram (7½ grains) of Xeroform in six wafers. The pain diminished after the first three doses; cure was complete on the first day.

10. Dusolina B., 30. Acute enteritis, with mucus in the stools. Treatment: Three grams (45 grains) of Xeroform in ten wafers; cure in two days.

11. Amilcare S., 19. Has had abdominal disturbance for some time. Diarrhœa, pains, anorexia, great weakness. Treatment: Xeroform, 2 grams (30 grains) in eight wafers. The pains diminished on the second day; and both they and the diarrhœa entirely disappeared upon the third.

12. Dina T., 24. Markedly anæmic; five months gravid. Since several days abdominal pain and diarrhœa; faces contain undigested food. Was given iron and Xeroform, 2.5 grams (37½ grains) in six wafers. The remedy was well borne, although digestion was greatly impaired. Cure after two days' treatment.

13. Ferdinando B., 61. Suffers from pellagra sincce several years. Enteritis during the last five months; four to six daily passages containing undigested food, mucus and blood. Abdominal pain and borborigmi. Has taken all the usual remedies, bismuth, Dover's power, tannin, etc., without effect. Treatment: Xeroform, 2 grams (30 grains) in five wafers; then 3 grams (45 grains) in six wafers. On the following day the abdominal pains and rumblings had almost entirely disappeared. The diarrhœa persisted, though in less intensity. Mucus and blood disappeared from the stools. The Xeroform was continued for several days, but without better results.

These results need but short commentary. The complete tolerance of the remedy, its absolute innocuousness, and its prompt action are apparent. It is readily intelligible that Xeroform, attacking the cause of the diarrhœa, rapidly relieves its symptoms, meteorism, colic, etc., so that special remedies for that purpose are unnessary. In acute cases, where its bactericide action is more rapidly than in chronic ones. In the chronic forms the infective sypmtoms are less marked, and the astringent effects of the remedy upon the inflamed mucosa are evident.

Dr. Petrucci concludes that Xeroform is a most excellent remedy for the diarrhœas of acute enteritis; that it is a therapeutic agent which answers all the clinical requirements of an astringent and disinfectant; that it acts upon the intestinal canal alone; and that it is well borne and has no harmful by-effects.—*Abstracted from Rendiconti del l' Associazone Medico-Chirurgica di Parma, No. 8, 1900.*

To the Physicians of the United States.

The National Woman's Christian Temperance Union has been active for twenty-seven years in combating the evils of alcoholic liquor drinking. Among its most effective allies have been those physicians who do not prescribe alcoholic liquors, allowing alcohol a very limited sphere of usefulness, or none at all.

We are endeavoring to bring the teachings of such physicians to the people and we believe that much good is being accomplished thereby. It is apparent, however, that if the evils of liquor drinking (ill-health, poverty, insanity and crime) are ever to be fully abated, the medical profession must take a more active part in this much desired reform. They more than any others, can disabuse the public mind of old-time errors concerning the use of or necessity for alcohol, either as a beverage or for medicinal purposes. It would seem to be the duty of those to whom the public looks for guidance in all things pertaining to health, to continue to make the most

careful investigations of the nature of alcohol and its effects upon the human system and to see to it that *their medical practice and teaching, as well as their personal example*, is upon the side of safety.

The New York School of Clinical Medicine, a postgraduate college for physicians, has just now opened a new department for the study of the constitutional effects of alcohol and other drugs.

An eminent Russian physician, in a paper read before the International Medical Congress, held at Moscow, August, 1897, said: "The struggle against alcoholism merits as much attention on the part of the medical profession as that against the various epidemics, and the success of the struggle is impossible without the active sympathies of the medical profession."

Realizing the truth of the foregoing statement, the National Woman's Christian Temperance Union, at the beginning of this new century, appeals to physicians to aid in the efforts being made to remove as far as possible all tendencies and temptations toward the formation of the drink habit. The medical profession can wield a powerful influence by bringing to the knowledge of the people the consensus of scientific opinion and practical observation, on the disastrous results which follow the habitual and indiscriminate use of alcohol.

Particularly would we ask physicians to warn parents against the home prescription of alcohol and against the use of proprietary medicines containing alcohol or other narcotic drugs, by showing them the danger and by teaching them a better way.

We respectfully ask that this appeal be published in all medical journals and that it be brought before National, State and County Medical Societies, for discussion.

With profound respect for your honorable profession, and with hope for your active co-operation in this work, we are,

Sincerely Yours,

LILLIAN M. N. STEVENS,
Pres't. N. W. C. T. U.

SUSANNA M. D. FRY, Cor. Sec.

The Teeth of the Nation.

If we were a truly military nation, we certainly should give more attention to the children's teeth than we do at the present time. A committee of the British Dental Association some time ago investigated the mouths of a large number of school children, with the result that they found that 84 per cent. of those examined had carious teeth. Of course all these children were not suffering from toothache. If they had been someing would have been done. The mischief is that dental caries often goes on until it has ruined the tooth for all useful purposes before any serious pain is produced, and that the children of the poor, when caries has gone on to such a stage as to cause toothache, have often nothing before them but extraction. Hence many troubles, much crowding and ill-development of the permanent teeth, and much future inability to tackle "bully beef." It is in the stage before toothache that preventive measures can best be taken, and this means that the dentist must go to the schools.

A great deal is being said just now about the necessity of providing free meals for school children, and although such a proceeding spells rank socialism, so, it must be remembered, does free education. But there is something before even food, and that is teeth. It must be remembered that there is a great hereditary and instinctive tendency among all but the very lowest type of the human race which drives parents to provide their young with food. Food of a sort then the children will be sure to have. On the other hand there is no inborn instinct which drives parents to look after their children's teeth. Yet we as a community object to nature's method of eliminating the toothless ones by starvation. So we keep the weakly ones alive sometimes in hospitals, sometimes in jails, sometimes in workhouses, but always at great expense, while the great multitude of those who are not thrown entirely upon our hands, lead a less healthy and less productive life than would be the case if they had been thrown upon the world uneducated, perhaps, but with good teeth. That the State should take care of the children's teeth is a matter not to be lightly put aside on the plea of its socialistic tendencies. It is a matter of both military and national importance.

Whether the State might not dig even deeper to the root of the matter, destroy all feeding-bottles, and punish with fine and imprisonment all mothers who do not suckle their own infants, is a still larger question which we will leave the Socialist to discuss.—*Hospital.*

Saccharomyces Cerevisiæ in Furnnculosis.

By Ph. Chapelle, M.D., Ancien Interne des Hopitaux de Paris.

Yeast (saccharomyces cerevisiæ) has long been recognized of therapeutical value in the treatment of furunculosis and certain skin diseases. The principal obstacle in the way of this treatment becoming universal,

has been the difficulty experienced in obtaining the yeast fresh and in preserving it free from secondary changes which take place with great rapidity and render its distribution almost impossible; indeed in hot weather, these changes take place from one day to the other.

In order to place at the disposal of patients an accurately dosed medicament, not liable to undergo change, a pure desiccated yeast, which occupies but a small volume, and is possessed of the same therapeutical activity as the best fresh yeast, is the best form of administering it.

This is obtainable as Cerevisine in the granulated form, which facilitates its administration and is more reliable than fresh yeast in its effect.

The activity of Cerevisine has been established by numerous clinical observation and, from a chemical point of view, it has been ascertained that in presence of sugary liquids, it gives rise to alcoholic fermentation with the gradual production of carbonic acid gas. These observations show clearly that the desiccation of yeast in no wise impairs its properties. Moreover, it never rises, like fresh yeast, to a sensation of heaviness on the stomach or acid regurgitations, so that it may safely be given to dyspeptics.

Cerevisine disintegrates rapidly in water and succeeds admirably in the treatment of furunccles and boils which promptly subside and disappear under its influence. In casess of acne, urticaria, psoriasis, herpes and eczema, its exhibition has also been followed by excellent results, this effect being associated with a corresponding improvement in the general health.

The dose of Cerevisine is from two to three teaspoonful daily before meals. This should be rubbed down with a little water or beer sweetened with sugar.

Formaldehyde Gas for Disinfecting Books in Libraries.

For some time the belief has been current, doubtless not without good foundation, that diseases are contracted by handling books in public, which have become infected with the germs of some disease. The New Jersey authorities have been the first to take preventive steps, owing to a case of scarlet fever, which had been shown to be transmitted by the agency of a book in a traveling library. Professor Mitchell, of the New Jersey State board of health, has been conducting a number of experiments with formaldehyde gas, using kindergarten toys and public school books, and so far it has been found the surest destroyer of microbes, working quickly and effectively. This has been demonstrated to the satisfaction of the experimenters, but the experiments are being continued to discover what is the least amount of the formaldehyde gas that can safely be used, not only to kill the germs, but to make the books gum-proof, at least for a time.—*Medical Record.*

The treatment of inoperable cancer is a most important art, much neglected by the average surgeon of to-day. Practically 75 per cent. of cancers may be regarded as beyond operative treatment when first brought to the attention of competent operators. It is to be greatly regretted that most surgeons at once lose interest in such patients; the moment the disease is seen to be beyond cure by operative measures the sufferer is turned away with the assurance: It is a hopeless case—go home to your family doctor and make yourself as nearly comfortable as possible to the end. There is much which can be done to prolong life and diminish pain besides the mere administration of opiates. When ulceration has begun and the discharge is foul an occasional slight curettage and the careful application of antiseptic dressings will add much to the comfort of the patient and friends. One may well apply gauze saturated with a 10 to 20 per cent. solution of chloride of zinc—in some cases, apparently hopeless, cure has been secured in the work of some men as in a case reported by Czerny of Heidelberg. Other patients are benefited by the use of the actual cautery followed by antiseptic dressings, the object being to keep the discharge as sweet and unirritating as possible—thus deferring sepsis, from which so many people die. Occasionally the internal administration of arsenic has an almost marvelous effect. In sarcoma the use of the serum from the streptococcur pyogenes and bacillus prodigiosus, administered hypodermically, as advocated by Coley of New York, is worthy of further trial.—*Amer. Jour. Surg. and Gyn.*

Ten Thousand Dollars for a Boy's Foot.

The Court of Appeals of Kentucky holds in the case of the Chesapeake & Ohio Railway Company vs. Davis, that, while a verdict of $10,000 is large for the negligent injury of a boy 9 years of age, rendering amputation of one of his feet necessary, it is not an excessive award of damages for the pain and suffering endured and the impairment of his ability to earn money by reason of the injury.—*Jour. A. M. A.*

A Practical Prescription Applicable in many Affections of the Air Passages.

By Ed. Gros, M.D., Paris.

While Tuberculosis is the most exhausting of all diseases, many of the alarming symptoms arise, not so much from the bacillus of Koch, as from the associated pathogenic germs, as is the case in Grippe, where the streptococcus and staphylococcus play an all important role. They thrive on the outskirts of the giant-cell or of the cavern. These germs are readily acted upon by antiseptics. The difficulty is to reach them and we cannot conveniently do so directly through the air tubes, but we *can* do so through the medium of the blood.

In tuberculosis of the lungs, therefore, with cough and catarrhal conditions, we look for tonic, antiseptic and antifebrile medication, and the same treatment applies to all inflammatory conditions of the mucous surfaces, as in acute bronchitis, tonsilitis and even in pneumonia.

We have recently been induced to place reliance in the following therapeutical agents with these facts in view:

Glycero-phosphate of Quinine. The commercial salt is rarely if ever pure, and generally consists of simple phosphate or insoluble mixed salts, the pure salt, however, is *a remarkable nerve tonic*, a proto-plasmic regenerator and an antifebrifuge which does not cause deafness, neither do patients become inured to its effects.

Benzoate of Creasote. This is a new combination of benzoic acid with beechwood creasote, and is supperior to the inert insoluble derivatives of creasote or those made from guaiacol. Pure benzoate of creasote is a tasteless, ordorless, colorless liquid. It is non-irritating in the stomach —through which it passes unchanged into the intestines—where it is acted upon by the biliary and pancreatic secretions, and absorbed in the blood, producing those antiseptic and anti-catarrhal effects required in pulmonary lesion. It has no irritating after-effects on the kidneys, which is always to be feared with other guaiacol and creasote preparations.

Pure Eucalyptol. This is an optically inactive colorless liquid of strong, aromatic, camphoraceous odor, boiling at 176 C. (348.8 deg. F.) sp. gr. 0930 and a refractive index of 1.4559.

It favorably influences catarrhal secretions and is much to be preferred to oil of Eucalyptus.

The purity of these modern agents is essential to their special utility. The difficulty of administering these remedies is overcome when administered in the very small gelatine capsules, according to the formula proposed by Kugler, of Paris, in 1899.

These capsules, for convenience in prescribing, have been called "Kugloids" after the author's name.

Kugloids of 20 centigrammes should contain exactly 2½ centigrammes (½ grain) of chemically pure *glycero-phosphate of quinine* dissolved in true *benzoate of creasote* and *eucalyptol.*

The combination is rational, and as a matter of fact the Kugloids give very remarkable results in febrile tuberculosis. They should be given in doses of 10 or 12 a day, and the best results are obtained by giving small and often repeated doses of one Kugloid at a time. The following are typical cases where I have used them to advantage.

Case 1. Miss M.——, complains suddenly of severe headache, pain in the back and limbs, sore throat, temperature 40 C. A typical case of influenza. I placed her on the exclusive milk diet and administered a Kugloid every hour until the next day, when they are reduced to eight a day. In 24 hours the fever had fallen to 37.4 C., and the patient felt well. Convalescence rapid.

Case 2. Mr. K. R.——, a young man, attacked with severe headache, sore throat, copious secretions from eyes and nose, high fever, no appetite for three days, extreme weakness and incapacity for work.

I administered a Kugloid every half hour for the first three hours, and one every succeeding hour. When I called to see him in the evening he was perfectly free from fever or other symptoms of grippe, and there was no relapse. Kugloids were continued, however, in doses of one every two hours for two days, as a precaution.

Case 3. Mrs. L——, is subject to frequent attacks of severe sore throat, which generally last a week.

When I examined her the tonsils were very large and were covered with white patches. Deglutition extremely painful. Temperature 39.8 C. I touched the throat with a 10 per cent. solution of silver nitrate and administered a Kugloids every hour. The next she was well enough to go out.

Case 4. Mr. B.——, has lost flesh for the last few months; expectorates in the morning. Complains of pain in the left apex, which twice has been very severe, preceding a slight hemoptysis. Has night sweats which weaken him considerably. Towards evening fever set in. Bacilli found in the sputa.

The ingestion of raw meat after the indications of Prof. Debove, and the hypodermic injections of cacodylate of soda, did him much good, but the treatment which most rapidly caused the night sweats to disappear as well as the disagreeable flushes, was the Kugloids taken 9 to 12 a day.

The Fine Old Irish Surgeon.

By F. E. Daniel, M. D., in Texas Medical Journal.

(Air: "*The Fine Old English Gentleman.*")

There was a fine old Irish surgeon, from Erin's emerald isle.
Who dashed around in a spanking double-team in the biggest kind of style.
His reputation as an operator extended far and wide.
And patients by the hundred flocked to see him in an ever swelling tide,
This fine old Irish surgeon, from Erin's emerald isle.

This fine old Irish surgeon was a man of wondrous guile,
Who by the practice of surgery and sundry other arts had managed to accumulate quite a respectable pile;
He had a perfect mania for operating, and a fee he never missed;
For sufficient pecuniary consideration he'd tackle anything on God's green earth, from a bone felon to a four-hundred-pound firmly adherent multilocular ovarian cyst,—
This fine old Irish surgeon, from Erin's emerald isle.

This fine old Irish surgeon, his leisure to beguile,
Would tell the darndest, toughest, most highly-improbable, Munchausen-like surgical yarns and never crack a smile;
He didn't care a continental for his patient's souls,—that was none of his business; for their bodies he cared still less,
And although most of his patients died on the operating table, and the others immediately after being removed, he'd claim with more truth than poetry that every operation was a "bloody, big success,"
This fine old Irish surgeon, from Erin's emerald isle.

One day there came a woman whose baby, she related,
In consequence of a grain of corn firmly impacted in the trachea, was well nigh asphyxiated,
Och, Doctor, dear, its dead, he is, as sure as ye's are born,
Unless be the holy mother ye's can extricate the murtherin' grain of corn,
Ye's fine old Irish surgeon, from Erin's emerald isle.

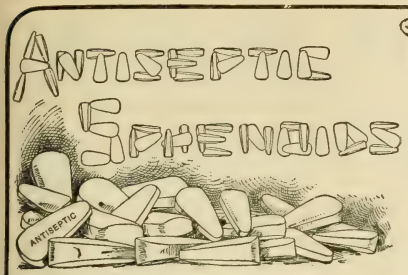
Be aisy, now, the doctor said, and never ye's moind a whinnet;
A sample of me wondrous skill I'll show ye's in a minit,—
Tracheotomy, I'll perform, the sixteenth today (moind that now),
And be the holy powers, while ye wait, that same pesky little grain of corn I'll quickly bring away,
Said this fine old Irish surgeon, in his grandi-loquent style.

The baby then he quickly took,—now in *articulo mortis*,
And laid it on the operating table; then just as quickly brought his
Instruments, and cutting down, through one tissue, then another, he did not stop till he had opened the trachea *secundem artem*, and with a pair of Gross' latest improved alligator forceps seized the offending foreign body and hastened in triumph to show it to the anxious mother,
This fine old Irish surgeon, from Erin's emerald isle.

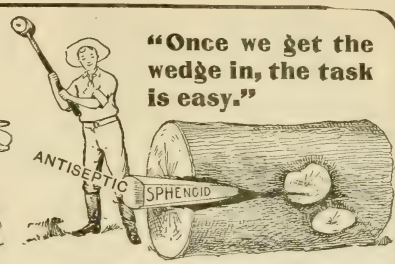
Och, madam, dear, here's the grain of corn,
—I got it, you just bet!
Faith, it's meself's the man to do the thing to which me hand is set!
The *baby?* Oh, the baby,—(I think it was, ye said?)—
I got the murtherin' grain of corn, I did,—but the *baby*, marm, is dead.
Said this fine old Irish surgeon, with his most complacent smile.

Electric Road Held Responsible.

In a decision recently handed down the New York Court of Appeals recognizes the responsibility of an electric railroad company for compensatory damages to a person injured by being thrown down by the jerk of a car in starting. A woman passenger on the Brooklyn Heights Railroad who had been injured in this manner secured $4,000 damages in a suit against the company. On appeal this verdict was set aside, the court holding that there was contributory negligence on the part of the passenger; but the Court of Appeals has reaffirmed the original judgment given for the plaintiff by the trial court.—*Boston Med. and Surg. Journal.*



For Vaginal and Rectal Troubles.



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Antiseptic. Astringent. Curative.

One each night, introduced into the vagina well up to the uterus, gives prompt and permanent relief in all forms of Vaginal Catarrhs, whether specific or non-specific. Antiseptic Sphenoids possess the very necessary physical qualities of ready disintegration and solubility, without which success is never assured. For Hemorrhoids and Sphincter Troubles, cover with petrolatum to facilitate insertion.

We feel confident if we can induce you to try Antiseptic Sphenoids, the goal of our ambition is complete and success will reward you for your trouble. **Send for Free Sample and Literature.**

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A Sure Diagnostic Sign of the Grip.

Dr. M. Manges said that one could from an examination of the base of the lung posteriorily make a diagnosis of grippe in an early stage. In nearly every case fine dry rales would be heard at the base of both lungs posteriorly, though more marked on the left side in most instances. In his own practice he had been in the habit of applying around the chest once in four hours a warm wet compress. This relieved the cough and made the patient comfortable to a degree hardly appreciated by one who had not given this method a fair trial. He had had a rather large and favorable experience in these cases of teasing cough with heroin, but he would insist that it should be given in small doses and combined with terpin hydrate or with iodide of potassium.

The speaker went on to say that the insurance companies had been astounded at the large percentage of cases of albuminuria coming under observation since the grippe had been introduced into this country. Possibly the explanation was to be found in the liberal and almost reckless use of the coal-tar products in the treatment of this disease. In the present epidemic the frontal sinuses and the antrum had frequently been involved. Grippe patients often reinfected themselves by improper ventilation or remaining too long in one room.—*Medical Record.*

The Bone Lesions of Myxedema.

Most observers who have studied myxedema regard the bone lesions met with in this affection as rachitic in character. Seigert (Archives de Medicine des Enfants Dec., 1900), however, in a recently published paper contends that the lesions of the osseous system in myxedema are of a very different character. The author finds, instead of the premature ossification of the long bones in rachitis, a tendency quite the other way in myxedema, as shown by the investigation of Hofmeister upon rabbits. The epiphyseal cartilages in lieu of early ossification, as in rachitis, remain cartilaginous more or less indefinitely. The writer further finds that the cartilages at the base of the skull persist, as well as the large fontanelle, in all cases of the congenital form, up to the age of thirty; in some cases even up to forty years.

He concludes thus: (1) The osseous lesions of myxedematous idiocy are specific in character, due to a hypoplastic chondrodystrophy. (2) They are wholly independent of rachitis; they present, on the contrary, a true antagonism to rachitis in their inception, development and results.—*Medical News.*

Twentieth Century Medicine a Liberal Education.

1. Though the century is purely an artificial division of time, being indirectly founded on the normal number of one's fingers or toes, yet the end of a century has come to be considered a divisional line for events and a convenient time for a general casting up of accounts. In such a reckoning the achievements credited to the youth stand in general in unfavorable contrast with those of the centenarian, but are now and then brought into enviable prominence by the premature reckoning; and so it happens that at the end of the nineteenth century that region of the globe whose metropolis is on the 105th meredian West, stands in the role of a youth that may fearlessly challenge the oldest to a comparison of all that owes existence to human genius, enterprise. Dry and treeless wastes of vast extent have here been suddenly transformed into orchard and meadow, garden and fruit field. Countless enterprises of colossal magnitude have magically altered the aspect of the country, and what was once but a wilderness and waste has suddenly become a health resort for all the world, where the invalid who comes early may hope to live long. Truly, here is fuel to fire the cockles of one's admiration. But this is not all. Foundations and equipments for the higher training of the intellectual faculties have, in strong contrast with the usual precedent elsewhere, kept equal pace with the material progress of this once hopelessly impossible land. Here the student of any and every useful science and art, the academic and the professional student, may pursue his course in institutions of high efficiency. In the van of all we would place the colleges of medicine.

2. It may seem strange to some that the medical college should, from an educational standpoint, be seriously named in precedence of the so-called academic college which has from time immemorial superciliously held without challenge the proud post of dispenser of a liberal education; but intellectual revolutions have of late been rife, and the latter half of the nineteenth century has ushered into the college world a revolution that will not be quelled until the last cavalier of medieval fancies about the proper composition of a liberal education has unconditionally surrendered. From this let us not be understood as lacking in respect for the time-honored trivo-quadrivial "arts"; indeed, we confess to an admiring weakness for certain academic studies and particularly for the humanities, the legerdemain of algebra, and the eternal truths of geometry. Surely, considered merely as a thing of beauty, what truth is more admirable than for example, that the surface of a sphere is equal to four great circles? And our admiration for the beauty of this truth is heightened when we reflect that man, sprung from the amœba, rose to the discovery and demonstration of that truth. And here we would parenthetically observe that much is gained for the admiration of the achievements of man by viewing him in the modern biological order rather than in the "ontological order" of former times; in other words, by viewing man, not as created a little lower than the angels, but as evolved from a protoplasmic cell.

The scope and duration of instruction in medical studies has in recent years been extended, so that now the course of medical instruction is equal, in time at least, to the quadrennial academic course, and must at no distant day be regarded as conferring upon the one who pursues it intelligently and faithfully the highest type of a properly denominated liberal education. As the world grows in wisdom it must come to be recognized more and more that the "proper study of mankind is man." To prosecute that study with intelligence requires a previous training and grounding in the better parts of the academic course.

Then, too, from the view-point of mental discipline, the medical course is second to none. This assertion will strike the ordinary academician as preposterous, who, however, being wholly ignorant of the medical aspect of the matter, can no more properly judge of the merits of the case than he can, in the seclusion of his study, determine the depths of the ocean. Huxley, the master mind of the nineteenth century, said: "There is no side of the intellect which it ["a thorough study of Human Physiology"] does not call into play, no region of human knowledge into which either its roots or its branches do not extend; like the Atlantic between the Old and the New Worlds, its waves wash the shores of the two worlds of matter and of mind." And this is said of a single branch of the science of medicine. Add to this such subjects as physics, chemistry, general biology, bacteriology, therapeutics, pathology and diagnosis, and surely the mastering mind will not become enfeebled through lack of exercise.

If disposed to quibble, we might in turn call in question the advisability of certain academic modes of mental discipline; but for the present we shall be content to venture the query whether the mathematical training required for entrance to our stand-

Rockbridge, Va., Alum Water.

That are of Intrinsic Value to the Medical Profession.

Extract from a paper read before the Atlanta Society of Medicine, April 26, 1887, by JOHN S. TODD, M. D., Professor Materia Medica and Therapeutics, Atlanta Medical College, Ga.; Ex-President of Georgia Medical Association; not read in our interest, but in the interest of Science and his profession:

"Some four and a half years since I had, among other cases, one of dysentery, which resisting all medication, became chronic, and a LARGE ULCER OF THE RECTUM DEVELOPED. I called in consultation a noted surgeon. The patient's condition was one of extreme emaciation; blood and mucus in large quantities were voided about an average of once an hour. The dose of opium had been increased to 3 dr. laudanum in twenty-four hours and ½ gr. morphine twice a day, and still matters grew worse. We decided to inject solution 30 grs. to oz. nit. silver in rectum. The result was a COLLAPSE that nearly proved FATAL. Upon it being suggested later that the operation be repeated, the patient, a young man, said if we and his family insisted, to avoid it HE WOULD COMMIT SUICIDE. Dr. W. S. Armstrong was then called in with me. He suggested an exclusively milk diet, gradual reduction of opium, and ROCKBRIDGE (VA.) IRON AND ALUM WATER. Immediate improvement set in, and in TEN DAYS so great was THE CONSTIPATION that oil and enæmas had to be resorted to to procure an evacuation from the bowels. Since that time I HAVE TREATED SEVERAL CASES EQUALLY AS BAD, WITH SAME HAPPY RESULT, using same diet and medicines, for of all agents for this disease, I consider THE ROCKBRIDGE ALUM AND IRON WATER THE FIRST. It is equally EFFICACIOUS in CHRONIC DIARRHŒA, AS MY RECORDS ATTEST."

DR. TODD, March 21, 1900, writes: I have for 16 years used these GRAND WATERS constantly in my practice with increased and increasing satisfaction. I inclose you article written 3 years ago on opium. "In chronic diarrhœa and dysentery, the milk diet, ROCKBRIDGE ALUM WATER, and small doses of opium given cautiously—very cautiously lest your patient acquire the opium habit—has proved so INVARIABLY SUCCESSFUL with me, that I have COME TO TREAT THESE CASES with CONFIDENCE BORN OF SUCCESS."

DR. HUNTER MCGUIRE, Virginia's great surgeon, says: As an astringent and tonic it is one of the most valuable I have ever used.

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Write JAMES A. FRAZIER, Mgr. Receiver, Rockbridge Alum Springs, for Pamphlet.

ard medical colleges is not all the mathematical training that is profitable for the general well-being of the mind. Gibbon tells us that he "relinquished forever the pursuit of the mathematics" as soon as he "understood the principles." He further says that he did not "lament that he desisted, before his mind was hardened by the habit of rigid demonstration, so destructive of the finer feelings of moral evidence, which must, however, determine the actions and opinions of our lives." The incapacity of professional mathematicians for dealing with problems of mixed uncertainties is notorious. Robert Stephenson, of lasting fame as a mathematician and the designer of the tubular bridge, raised high the hopes of his constituents by entering parliament, but proved to be signally deficient in dealing with the complex and uncertain affairs of state. We would, however, not advise the ordinary youth to repress, through fear of injury to the brain, any moderate inclination he may have for the pursuit of mathematics; but on the contrary, we would strenuously recommend to all who have inclination and opportunity for profitable study to pursue with vim and vigor not only mathematical studies, but also the whole academic course, and particularly the ancient classical languages, even a rudimentary knowledge of which, if thorough, must be of service in every walk of life, and especially in the study of medicine.

From all these and from other considerations not now to be discussed, we are pleased to regard a thorough medical education, in its unprofessional aspect, as the one most deserving to be considered liberal; and we venture to predict that ere the end of another century the degree of M. D. will enjoy the social preference long given to the degree of M. A.—*Colorado Medical Journal.*

Astronomical.

He had been there. Said the siren to the young student, as she Saturn her scarlet couch: "Won't you come in and spend an hour with Venus?" "No; thanks," said the young student, "Not any. I've been there. I spent an hour with Venus already last year, and then went up to the hospital and spent six months with Mercury, and since then I have been laid up at Ma's; and don't Juno, I consider it a Sirius matter." Saying which the young student Sidereal big sigh and moved on.—*Texas Medical Journal.*

The Drinking of Methylated Spirit.

The varieties of drinking are endless. The most innocent form is probably that in which alcohol is taken along with other kinds of food either at a meal or, as in the case of a thirsty laborer, in the form of a draught of beer, a drink of which contains a modicum of nourishment. A pint of good ale is indeed said to contain as much carbohydrate as one and a fifth ounces of bread, which explains the saying common among working people, that beer is both meat and drink. The worst form probably is where alcohol is taken for its merely stimulating effect—to lift one up, to remove an inward craving, to produce a sensation of well-being—and a good deal of the evil of this form of drinking arises from the fact that alcohol is most effectual in this direction when it is strong. Herein lies much of the evil of spirit drinking. What, then, are we to say about the drinking of a methylated spirit which we believe is now indulged in to a large extent in certain quarters? Methylated spirit is nasty, but it is very strong, and if for 5d. or 6d. one can buy a whole pint of spirit containing nearly twice as much alcohol as whisky, the question of taste sinks into insignificance with those who crave merely for stimulation. So that they get the alcohol, they can by practice train themselves to swallow a little naphtha along with it. We are not sure that after a time the drinkers of this vile spirit do not even develop a taste which would lead them to turn aside from pure and mellow drinks. In any case the possibility of people flying to such a horrid alternative must be borne in mind by those who would exercise compulsion in regard to the ordinary alcoholic beverages.—*Hospital.*

The British Museum has recently come into possession of a mummy which is generally believed by the experts, who have been privileged to examine it, to be the most ancient yet discovered. This addition is of unique value, in view of the fact that it conveys a more comprehensive idea of the origin of the ancient Egyptians than has ever yet been obtained from similar relics. Upon this point there has always been a wide divergence of opinion among archæologists. The mummy was taken from a neolithic grave. It is the body of a man about 5 feet 9 inches in height. Upon the scalp is a remaining lock of hair which suggests that it was originally of a fair color. The hands and feet are small, and from the intellectual formation of his head it is conceded that he must have belonged to a superior race. The result of Egyptological investigations declares that the mummy is that of an aborigine of Egypt, which was conquered by an Asiatic invasion about 8000 B. C., and which afterward intermingled with the conquering race, thus constituting the foundation of the race known as Egyptians. The grave from which the body was taken out was an oval cavity in a sandstone rock, and covered with a number of large slabs of stone. Ranged round the body were the usual flints and earthenware pottery. It was found impossible to remove the grave of the body together with the mummy, so an exact replica of the tomb was made, and the body now reposes in a case in the Egyptian gallery of the museum in exactly the same position in which it was found.—*Scientific American.*

Corporeal Specific Gravity.

Although the absolute weight of the body is a valuable sign in determining the physical condition of a patient, yet it does not always reflect the true state of health, for a very heavy man need not be obese, nor need a light man be emaciated. Much more definite and valuable assistance can be had from the determination of the specific gravity. H. Stern (Med. Rec., Feb. 9, 1901), after considerable expense, suggests that the simplest method of ascertaining this point is by the Archimedean principle by which the density is obtained by dividing the absolute weight of the body by the loss of weight which it sustains when suspended in water. He believes that if the specific gravity is below 1,063 or above 1,073, unsoundness of the organism is denoted. Low density means satiation with water or preponderance of adipose; the high figure means disturbed metabolism, general atropic state, or senility. There is also a greater predisposition to infectious diseases when the density is low, and increased susceptibility to eliminative disorders when it is high. Strength and endurance are deficient among those at either extreme, and the duration of life depends so much upon corporeal density that this physical sign should become a valuable one to life-insurance examiners.—*Med. News.*

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A useful dusting powder for the chafing of infants is made by combining Iodozen 5 per cent. with powdered starch—in erysipelas, Iodozen may be advantageously applied to the inflamed surface undiluted.

Combined with vaseline or lanoline, Iodozen forms an ointment of general utility as a healing application, and for the relief of puritis ani and vulva, hemorrhoids, prostatic irritation and gonorrhœa, in which affection it may be used as an injection.

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Intestinal Hemorrhage and Fatty Heart.

A patient, fifty-eight years of age, usually very well, was operated on by C. Phelps (N. Y. Med. Jour., Feb. 9, 1901) for an umbilical hernia. During the anesthetic he was very cyanotic and his breathing was irregular. He reacted well, but on the third day his pulse and temperature were very high and on the fourth day signs of internal hemorrhage and collapse appeared. Much blood was passed from the bowels and some was vomited. Autopsy showed a healthy wound and peritoneum, a moderate cirrhosis and a very fatty heart. The muscular walls of the right ventricle were not much thicker than paper. The additional strain of the anesthetic and operation is supposed to have overburdered a weakened heart and induced sufficient congestion to result in hemorrhage from the intestinal and stomach mucous membranes.—*Medical News.*

Artificial Cultivation of the Gonococcus.

It has been a difficult problem for bacteriologists to grow the gonococcus Neisser on artificial culture media. Time and again different investigators have recommended divers media for cultivation of the gonococcus; in many instances the medium which proved successful for the cultivation of this organism in the hands of the discoverer would be absolutely a failure in other workers' hands. The best medium which the writer has ever used and which proved most uniformly successful was a mixture of albuminous urine and agar prepared in the usual way. Yet others have again and again written of the inutility of this medium for the gonococcus.

The latest artificial medium which has been lauded for growing the ubiquitous gonococcus is the blood serum agar mixture of Besancon-Griffon. Marcel See (Soc. de Dermatologie et de Syphiligraphie, Seance de 5 Juillet, 1900) has been the latest investigator to succeed with it, and he has written laudatorily of it. The culture medium is made in the following way: Agar is prepared in the usual manner. The tubes are then melted and cooled to 40 degrees C., the artery of a rabbit is opened and blood is allowed to run directly into the tubes so that there shall be one-third as much blood in the tube as agar. This gives an excellent nutrient medium, and as we have said, it is said to be successful for the hitherto weak micro-organism. It is to be hoped that the expectations of its discoverer will be realized, for certainly the artificial growth of the gonococcus has been fraught with difficulties in the past.—*Stylus.*

Bacillus Aerogenes Capsulatus in Puerperal Infections.

This subject is taken up by Welch in a paper on morbid conditions caused by bacillus aerogenes capsulatus, which appears in the September number of the Bulletin of the John Hopkins Hospital. The puerperal conditions due to this germ are:

1. Emphysema of the fetus dead in utero. The infection generally takes place after rupture of the membranes.

2. Puerperal endometritis, in which it is usually associated with other germs.

3. Physometra and emphysema of the uterine wall, the latter being much the more serious condition. In eleven cases of the latter affection, all were fatal.

4. Puerperal gas-sepsis. Gas bubbles found at an early autopsy in the heart and vessels, etc.

The author considers that most of the cases reported as deaths due to the entrance of air into the uterine veins really belong to this kind of infection.

We should conclude from the author's remarks that this bacillus causes an extremely fatal infection when it gains entrance to the tissues, but that it is not specially dangerous to the mother otherwise.—*Canadian Prac. and Rev.*

Most men know love as a part of life;
They hide it in some corner of the breast,
Even from themselves; and only when they rest
In the brief pauses of that daily strife,
Wherewith the world might else be not so rife,
They draw it forth (as one draws forth a toy
To sooth some ardent, kiss-exacting boy)
And hold it up to sister, child or wife.
Ah, me! why may not life and love be one?
Why walk we thus alone, when by our side
Love, like a visible God, might be our guide?
How would the marts grow noble and the street,
Worn like a dungeon floor by weary feet,
Seem then a golden court-way of the sun.

—*Timrod.*

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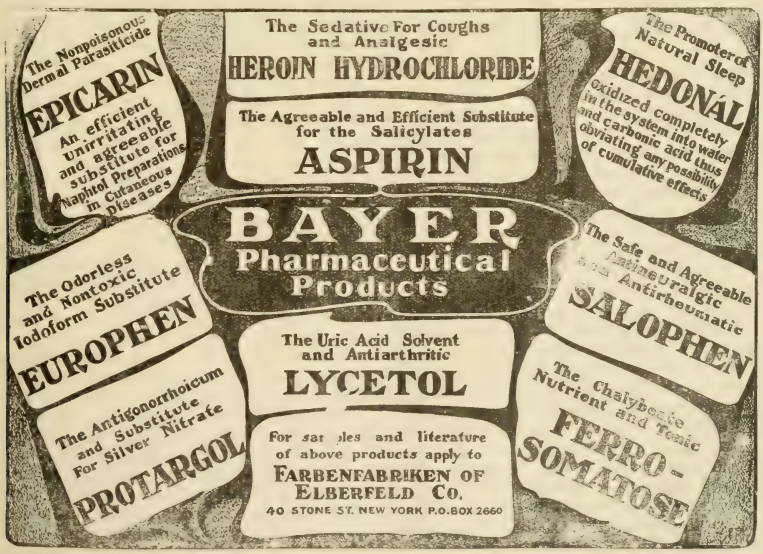
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Congenital Absence of the Kidney.

Dr. Otto H. Schultze presented specimens from a man about thirty years of age, of whose clinical history nothing was known. The cause of death has been clearly shown to be an acute lobar pneumonia involving the upper and lower lobe of the right lung. The point of interest was the absence of the left kidney. A little above the level of the sacro-iliac synchondrosis was a vestige which was taken to be the "anlage" of the kidney and ureter. By this term was meant not only the site but the actual tissue which should have developed into a given organ. This vestige consisted of a canal in which there was a distinct bend. The upper portion was dilated into an ampulla composed largely of connective tissue with here and there a canal. Under the microscope this canal resembled closely a well-developed ureter. Above this enlargement were three canals branching off and passing externally to the ampulla. They were about 6, 5, and 3 cm. in length respectively. On cross section a number of canals could be found, and these were lined with cuboidal epithelium. The contents consisted of dark brown material which was shown under the microscope to consist of epithelial detritus. This duct he took to be the ureter, and the division as having taken place before the formation of the kidney. Surrounding this tube a fascia or sheath, passing from the brim of the pelvis into the true pelvis and inguinal canal, apparently connected with the tunica propria of the testicle. The testicle and epididymis were present, but they did not occupy their normal relations, the epididymis being stretched out above the testis. The tunica vaginalis testis passed upward and included the tail of the epididymis. From the latter a very thin duct could be traced upward; it was apparently the vas deferens, but was lost at the bladder wall. On dissecting up the peritoneum the vas deferens and vesicula seminalis with the ejaculatory duct were seen on the right side. The seminal vesicle on the left side was not nearly so well developed. The orifice of the right ureter was quite distinct; that of the left ureter could not be found, nor could any trace of the left ureter be discovered at the bladder. This was because the left ureter passed upward upon the bend mentioned, becoming atrophic. Sections of the ureter had been made in various places, and of the right and marked by hypertrophied kidney. The size of this kidney was apparently due to compensatory hypertrophy.—*Medical Record.*

Marriage Legislation.

In no less than three States at the present time enactments regulating marriage are before the legislatures, and apparently with some prospects of success. They are alike in their general provisions, prohibiting the union when one or the other of the candidates for matrimony is not physically sound is subject to insanity, epilepsy, tuberculosis or other hereditary disease. In one State the proposed law apparently prohibits marriage if one or both the parties are members of a family tainted with these disorders, and in one there is an age limit established for women at 45 years, according to the newspaper reports of the bill. This probably is the same provision as is contained in a similar enactment in an eastern State in which marriage was permitted after the presumed reproductive period had been passed, and not a prohibition of marriage after that age. The difficulty with these and any similar laws is the impossibility of executing them; there may be a heavy penalty for the forbidden marriage in one State, but the ceremony can be legally performed a few miles away in another, and then the relations must be recognized as legal everywhere within the United States.

So long as there is any part of the country where such laws do not prevail, they can be rendered ineffective. There is still another objection—if legal marriage is made difficult, illegal births become more frequent and illegitimacy may be added to degeneracy in a considerable portion of the population, a result certainly not to be desired. It would be an excellent thing could we prevent the propagation of diseased heredity. The sum of human happiness would be increased if fewer people were almost inevitably predestined from birth to suffering and disease, but the question is how far can we prevent it by law with our present social and political institutions. The experiment seems likely to be tried, possibly on an extensive scale, and the results will be of interest.—*Jour. A. M. A.*

Pueblo is to begin at once a determined compaign against promiscous expectoration in the street cars, on the side walks and in other public places. At a meeting of the health board Dec. 10, 1900, following the regular session of the council, the city attorney was instructed to prepare an ordinance prescribing a penalty for expectoration in street cars, on sidewalks and in other like places. For some time there has been a demand for such municipal legislation — *Colorado Med. Jour.*

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A certain position of the vocal cords, called the cadaveric position, has for long been commonly supposed to be the position in which the cords are found in the cadaver.

Fein, in a paper of 40 pages, describes his exhaustive investigations on the position of the vocal cords in the cadaver. He finds that the vocal cords immediately after death are in the median line, or very near it. The result of rigor mortis is to draw the cords away from the middle line, so that the glottis broadens. The width of the glottis in the undisturbed body is different from what it is after the larynx has been taken out. After removal of the larynx the cords are found in a position half way between extreme abduction and adduction. After rigor mortis has passed the cords remain between abduction and adduction, but tend to return towards the median line. There is no typical form of the cadaveric glottis; it is as variable as it is during life. After complete cessation of rigor mortis the thickness of the cords appears to increase. At the moment of death all forces in the body suddenly cease, and the arytenoids sink backwards, which tends to approximate the cords. At the onset of rigor mortis the abductor muscles stiffen first and the glottis begins to open.—*Boston Medical and Sur. Journal.*

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A Druggist Mulched for a Mistake in Dispensing.

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A Verdict of Gas Poisoning.

Mrs. Fredericka von Mochow has secured a verdict of $9,000 in a suit for $25,000 damages, in the Supreme Court, against the New Amsterdam Gas Company, for the loss of her husband. She asserted that the company, in changing the meter in the house where she lived, left the connecting pipes in such a condition that there was an escape of gas during the night which poisoned all the family and caused the death of Mr. von Mechow. The case is said to have no precedent.—*Boston Med. & Surg. Jour.*

Efficient Drugs in Bronchitis.

Leech calls attention to the fact that the drugs useful in the treatment of bronchitis are frequently givne in inadequate doses. In the treatment of acute bronchitis there is no better combination of drugs than that of ammonium acetatis, spirtus etheris nitrosi and ipecacuanha or antimony. Liquor ammonii acetatis is generally prescribed in drahm dose to be given every four hours when it should be given in doses of three drachms and increased to six drachms if the skin does not act freely. Since marked relief to the breathing often accompanies the sweating, sweet spirits of nitre should be given in two-drachm doses and repeated at short intervals. This author considers antimony in 1-20 grain dose is of the most service in moist bronchitis with oppressed breathing, and that in the dry form with tight cough, ipecac should be given. If ammonium carbonate is used it should be dissolved in water, and the dose—at least five grains—should be given in milk and repeated every hour or two.—*Stylus.*

New Field for Trained Nurses.

From an editorial paragraph in a British contemporary we learn that one of the latest fads over there is having trained nurses for pet dogs. We have heard of women nursing dogs before, but this is the first notice of that function of trained nurses. There is so much said nowadays of the high ideal, etc., of the nursing profession that it is something of a shock when this evidence comes to hand that, to some extent at least in Great Britain, it is literally "going to the dogs." So far as known this bestial fad has not appeared in this country, though a combination of zoophile and anglomaniac possibly exist that may introduce it.—*Jour. A. M. A.*

Osteopathy.

A bill has been introduced in the Senate having for its object the licensing of osteopathy. All physicians and all thoughtful men who will give the subject any attention will readily agree that such a bill should not become a law. As well license christian science. Osteopathy is not a system of medicine; it is not even a method of therapeutics. It is a massage, possibly improved, but massage just the same. The word means *disease of bone.* Osteopaths however, instead of professing bone disease in themselves, claim that all disease is due to defects in bones and joints. This is about as sensible as to claim that all light comes from tallow candle, which might seem true to a man who had always lived in a dungeon and had never seen any other light.

The Osteopathic Association, like our medical societies, is ambitious to appoint its own board. The bill explains that they are to treat disease, but are not to be considered as practicing medicine or surgery. Possibly a mind that understands and appreciates the profundity of ostepathy might be able to elucidate this position.

Some years ago there was in vogue a system of medicine that treated all disease by rectal injections. To-day such practitoners would be designated rectopaths or injectopaths. If any of them are living they should join the osteopaths in applying for a license.—*Pacific Med. Jour.*

A Bad Superstition.

According to a Toledo (Ohio) physician, some people in that city have a superstition against paying doctors' bills. They think if they pay him in full they will have to pay him again. "It may be all right," he says, "as a superstition but it is pretty tough on the doctors." This must be a very widespread superstition, and its existence must have been in the mind of the celebrated medical writer who dedicated his words "to all men who are free from superstition." A certain amount of superstition is excusable, in fact it seems almost unavoidable, and the above dedication hits a very limited number of individuals, if indeed any at all, if the term is taken in its widest sense. But the particular form of superstition mentioned above will not be encouraged by the medical profession.—*Jour. A. M. A.*

The cycling industry of England is at present in a critical condition. The majority of the companies have not paid any dividends during the past year, and the outlook portends worse business in the future. It is estimated that no less than $100,000,000 are sunk in the cycle industry in England. During the past four years no less than fifty companies aggregating a capital of $25,000,000 have disappeared. The main reason for this crisis is over-capitalization, combined with reckless, dishonest trading, while the cycle, although a popular means of locomotion, is being rapidly supplanted by the motor car. The cycle firms at present in a flourishing condition make this industry only a ramification of an extensive business, so that any loss incurred by cycle manufacture is compensated by the financial success of other specialties.—*Scientific American.*

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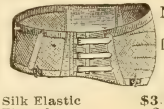

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Knock-out Drops.

"In at least fifty stores in this town," says a write. in the New York "Sun," a stranger can buy chloral hydrate without a physician's prescription. Some of the druggists know what use it is to be put to at the time they sell it, but they charge $2 to $3 for an ounce bottle of the mixture, and so long as they get a good price for it they ask no questions. There ore two drug stores in Manhattan that are thriving on the sale of chloral hydrate. Their customers are thieves who make a practice of drugging and robbing men who come to New York to see the town.—*Sanitarian.*

Sanmetto in Prostatic and Bladder Diseases.

I have used Sanmetto in my practice for several years and believe it to be a preparation of more than ordinary merit for the cure of prostatic and bladder diseases. The ethical manner in which it is put before the profession allows the physician to prescribe it, without fear of its use by the laity, in all cases where it is indicated.

C. D. Mason, M.D.,
Professor of Rectal and Pelvic Surgery in Creighton Medical College, Surgeon to St. Joseph Hospital.
Omaha, Neb.

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The Court Asked to Compel a Board to Register a Physician.

An alternative writ of mandamus has been granted by Judge Siebecker in the circuit court in the case of the State of Wisconsin *ex rel.* Dr. W M. Caswell, of Hillsboro, Vernon county, to compel the State board of medical examiners to receive his registration as a practising physician. In his application Dr. Caswell asserts he has been a physician in regular practice for twelve years, and that he made application to the board for registration in the regular way, but his application was refused. The writ is made returnable before Judge Siebecker January 14th.—*N. Y. Med. Jour.*

Treatment of Vulvar Vegetations by Carbolic Acid.

M. Coquille recommends the application of carbolic acid to destory vegetations of the vulva. This mode of treatment avoids hemorrhages and wound complications. The applications are little painful, and are applicable to all cases, even where the growths are large and excision dangerous. It can be used during pregnancy or in cases where there is diabetes, anemia or hemophila. The sole possible inconvenience is the phenic erythema of neighboring parts, but this can be avoided by using care. He had never had any accidental intoxication. —*St. Louis Med. Rev.*

The Charlotte Medical Journal.

VOL. XVIII. CHARLOTTE, N. C., MARCH, 1901. No. 3.

Moot Questions in Abdominal Surgery.*

By H. A. Royster, A.B., M.D., Raleigh, North Carolina.

No matter how rapid the progress of surgery or how brilliant its achievements, there will always remain problems to be solved. So many uncertain agencies are involved in the surgical art that its results can never be foretold with exactness or estimated with accuracy. The local and general resisting power of the patient, the skill of the surgeon and the technique of the operation are the circumstances chiefly concerned. In former times operative technique had to do rather with the manual dexterity of the surgeon himself. Now it may be defined as the sum of events connected with the attempt to secure and to preserve perfect asepsis, beginning with the preparation of the patient a few days before the operation and ending with the closure of the wound or the final dressing. It includes the sterilization of all instruments, dressings, skin and hands previous to the operation and constant watchfulness to keep them sterile during its progress. Personal dexterity counts for less than it did in times gone by. As the technique is, so are the results; and a surgeon of even moderate ability may succeed eminently, if only his technique is careful. How much greater the success if to this is added a resourceful skill, the gift of a surgeon born and not made! Yet, if he should neglect a well-defined and well-executed technique, founded on his own experience and that of others, the modern surgeon, however great his ability, would fail to obtain the results that should be his.

The personal equation shows itself at this day in the choice of technique, as it did formerly in operative skill. No two operators use precisely the same methods. There are, for illustration, as many different plans for disinfecting the hands of the surgeon as there are surgeons, and the various uses to which the several suture materials are put testify that there are "many men of many minds" in the surgical world. And yet, these men are working to the same end, trying to solve the same problems, endeavoring to remove the uncertainties and to perfect the possibilities of operative technique.

If these assertions are true of surgery in general, so much more do they apply to the special region of the abdomen. Abdominal surgery possesses all the uncertain features connected with surgery elsewhere and others, which are due to peculiarities of location and structure. It involves the opening of the largest serous cavity in the body and continued manipulations within its walls. Several important considerations present themselves. There is need of overcareful (1) *asepsis* for a slight slip may mean disastrous consequences—not merely delayed convalescence, but loss of life. A proper (2) *toilet of the peritoneal sac* is an essential requirement. The (3) *wound is to be closed* in a way which will afford a strong support and protection to the contents of the abdomen and be of the least subsequent annoyance to the patient. The (4) *after-treatment* must be directed toward guarding against any possible error in technique, granting the patient a comfortable convalescence and prompt restoration to health.

The object of this paper is to consider in detail the four requirements outlined above. They represent, it is thought, the leading problems in which abdominal surgeons are interested and about which there are the greatest differences of opinion. The writer hopes to introduce the subject in such a manner as to invite discussion at the hands of those who are concerned with the development of abdominal surgery. The views and practices of others working in the same field must always be of value to those who are seeking to learn the best methods. For the purpose of obtaining an approximate concensus of opinion, the following questions were asked of five prominent operators in each of our three largest cities —New York, Chicago, and Philadelphia: 1. Do you employ rubber gloves in operating and would you recommend their routine use? 2. Do you irrigate the peritoneal cavity in every case of abdominal section? 3. What is your method of closing the abdominal incision? 4. Give outline of your after-treatment following celiotomy, especially with reference to securing movement

*Read before the Tri-State Medical Association of the Carolinas and Virginia, at Richmond, February 26, 1900.

of the bowels. The personal replies to these questions are added to some remarks by the writer on each topic.

1. *The Use of Rubber Gloves.*—It is not deemed necessary to go over the numerous methods in vogue for sterilizing the hands. Of several different methods, one is as good as another, provided the surgeon's "aseptic conscience" be ever above reproach. As a matter of fact, too well-known to need more than a reference, the hands of the operator and the skin of the patient cannot be rendered sterile by any present plan of disinfection. The staphylococcus epidermidis albus, innocent enough when quiescent, but mischievous if aroused, eludes and resists all measures intended for its destruction. The wearing of gloves, then, is taken as the extreme effort to prevent infection from the hands, inasmuch as the gloves can be perfectly sterilized and thus all danger from that source removed. Rubber gloves alone are considered here, other materials having been largely discarded. It has been about five or six years since rubber gloves were first employed in clean surgical cases. They were introduced as a solution of the problem of hand-disinfection and this is the one need for them in aseptic wounds. Many surgeons found, however, that when gloves were employed their results seemed no better than before, the few infections in large numbers of cases being traceable to other sources than the hands. The question then came, Are gloves necessary to secure the best results? Does the advantage of the ideally sterile hands compensate for the disadvantages—and they are many—of encasing them in rubber material? Let us see what these disadvantages are. It is obvious that the wearing of gloves dulls the sense of touch. In the case of very thin ones, usually worn by operators who employ gloves, this is less and less marked the more they are worn; and by constant use the fingers may become sensitive to outside impressions, but never with the delicacy of the bare skin. The gloves worn by assistants are frequently thick and heavy. Even when gloves are used it is necessary to have the hands aseptic, for it may happen that the gloves are punctured with a needle or torn while in the act of tieing a ligature and it is so often that the gloves must be removed in order to bring the tactile sense more acutely to bear. An eminent gynecologist wears gloves during a celiotomy and then takes them off before closing the wound for the purpose of examining the whole contents of the abdominal cavity in a satisfactory manner. It would seem that he defeats his own object and puts at naught the supposed value of his hand covering.

The thought must suggest itself, further, that ideal technique cannot be attained by the exclusion of danger from the hands when it is remembered that the patient's skin, from which arises far more infections than from the hands of the surgeon, constantly presents the same condition of affairs. But while there are objections to the use of gloves, it is recognized that there exist indications for them under certain circumstances. They may be employed in operating on pus cases and infected wounds, or in making examinations of the rectum or vagina, as a proctection to the surgeon himself and to subsequent patients. In the presence of positive danger of transmitting infection, the advantages outweigh the disadvantages. It can be safely asserted that the majority of American surgeons do not employ gloves at all. Some use them under the conditions just named; while only a few wear them as a routine. From thirteen replies received only three of those addressed are found to use gloves habitually. J. B. Deaver unqualifiedly answers in the affirmative; Clark, of Philadelphia, withdraws them when breaking up adhesions deep down in the pelvis and then again puts them on. McBurney says: "I should be as likely not to sterilize my instruments as to omit the protection for the patient against sepsis which the use of these gloves insures." Most of the others wear them in foul cases and usually require their assistants to do so in all operations: Boldt, Byford, E. C. Dudley, Keen, F. H. Martin, E. E. Montgomery, and Senn. Three operators do not wear gloves or advise their routine use. Robt. T. Morris: "I cannot imagine a young operator becoming very expert if he uses gloves. I believe that more bacteria drop into the long-exposed wound of the glove operator than are carried in by well-prepared bare hands." John B. Murphy: "I believe that if a man cannot keep his hands clean, he cannot keep gloves clean." Joseph Price: "I have never had a pair on. I do not recommend them." In Europe, where experiments were first made with different materials for covering the hands in operating, gloves are employed less than formerly. The Berlin surgeons rarely use them, and Tuffier is said to be the only glove operator in Paris.

2. *Irrigation of the Peritoneal Cavity.*—To irrigate or not to irrigate has almost superseded the question of drainage as a subject of discussion and doubt. The extremes of opinion represented by a nearly equal division of operators—those who irrigate the peritoneal cavity in every case

of abdominal section and those who do not irrigate at all. Between these there is perhaps a larger number who employ irrigation only to wash out foreign material from the abdomen. What would be an indication for irrigation to one surgeon is not considered so by another. In general, we may say that the most imperative need for it is to cleanse the cavity of pus, blood, or tissue debris. This would seem to be a rational proceeding, getting rid of offending substances which are either infectious or likely to be; yet there are many surgeons who take an opposite view. They believe that the irrigating fluid distributes the infecting material over the whole peritoneal surface, thereby causing more danger than if it were localized and, in the case of pus, drained out, or, in that of other foreign substances, wiped away by dry sponging. There is reason on the side of both methods. Were it possible to remove every particle of foreign matter from a certain area by means of dry gauze, this would surely be the plan to be followed in every instance. On the other hand, irrigation may serve a more useful purpose by displacing the greater part of the debris and diluting the remainder to such an extent that its virulence is distinctly lessened and, possibly, entirely overcome. The truth is, there is no means of judging correctly the merits of these opposed methods. Results cannot decide the question, for operators habitually using one or the other of the plans are able to exhibit a long series of equally gratifying successes with excellent arguments for the faith that is in them. Irrigation has in its favor that it may bring about further desirable effects besides cleaning the peritoneal cavity. The fluid used is generally the normal salt solution and, if a portion of this is left in the abdomen, as is frequently done, it may be relied upon to lessen thirst after the operation, cause increased action of the kidneys, combat shock and prevent post-operative adhesions. These conditions alone might furnish sufficient grounds for irrigating in every case. However, the fancy of the operator holds mighty sway here as it does in other branches of surgical technique. In answer to the question, Do you irrigate the peritoneal cavity in every case of abdominal section? the following replies are noted: Clark irrigates in every case and leaves one-half to one liter of salt solution in at least 90% of abdominal sections. Keen does so "not in every case but in the majority." McBurney, Price, Morris, Senn, Dudley, and Montgomery generally prefer a dry technique, irrigating only when special indications exist. Martin and Boldt seldom irrigate. Byford hardly ever, and Deaver answers the question in the negative. Murphy says: "I never irrigate the peritoneal cavity. By that I mean I have not used water in the peritoneal cavity for any purpose whatever except eight times since 1889. These were cases of peritoneal infection from rupture of the stomach or bowel and the water was used for washing out the bowel—or stomach—contents that had escaped into the peritoneal cavity. In place of irrigation I cleanse the peritoneal cavity with dry sponges and then use numerous strands of iodoform gauze drainage and also use glass tube drainage. No matter how much pus there is present, it is sponged out with dry sponges."

3. *The Closure of the Abdominal Wound.*—Accurate apposition of the cut edges of the abdominal incision is essential to the proper healing of the wound. Since the abdominal wall is composed of several layers differing in structure, it is desirable that these be perfectly coapted, that the tissues may be left as nearly as possible in their normal relations. The prevention of hernia is seen to depend much more upon primary union of these layers than upon the length of time in which the patient is confined to bed or upon any subsequent method of support. To secure this perfect union various methods have been devised by modern surgeons, some simple, others elaborate, according to theories held or results obtained. It is agreed by all that the most important factor in the prevention of hernia is the sheath of the rectimuscles. Firm union of this structure will compensate for other weak points in the abdominal wall. Separate suture of the peritoneum, which is practiced by many, may be requisite for shutting off infection from the skin; but it is not instrumental in preventing hernia, for every protrusion of the intestine is covered by the peritoneum as its sac. Separate suture of the muscles seems useless. They do not appear to unite more solidly by this method than when their fascial protection is closed. The skin, of course, must be carefully apposed, in order to seal the wound and secure union by first intention. A number of operators still adhere to the en masse suture, passing through all the structures, as used by primitive abdominal surgeons, and claim satisfactory results. Probably a greater number supplement these sutures with catgut on the fascia, while others unite each layer separately—peritoneum, fascia, fat and skin. Doubtless, there are very few who use exactly the same method; and, yet, each believes his own plan is soundest in theory and most successful in practice. It may be interest-

ing to note some of the replies to the personal communications. Price uses the "through and through suture, silkworm gut, long straight needle." Martin, generally, and Keen, occasionally, close the incision with through and through silkworm gut sutures, but sometimes employ catgut in layers. The remainder of the list employ some method of tier suture, each one with different modifications. Clark and Byford use buried silkworm gut on the aponeurosis; Murphy, the figure-of-eight silkworm gut suture, which is allowed to remain from ten to fifteen days.

4. *The After-treatment.*—Although it is true that in the majority of cases the fate of the patient is decided when the abdomen is closed, yet the duty and responsibllity of the surgeon do not end after the operation is completed. Indeed, the management of the patient a few days succeeding the operation requires intelligent judgment and discriminating care, for by these convalescence is shortened and even death averted. Many a life has been lost by carelessness or neglect. It behooves the surgeon, therefore, to give a watchful eye to the after-treatment, seeking to improve and perfect his methods in this regard as he does in respect to the operative technique. That surgeon is most successful here who uses his knowledge of general medicine to the best advantage. The late Professor Ashhurst well expressed the idea when he said: "The importance, and even necessity, of a thorough knowledge of practical anatomy, can, indeed, be scarcely overrated; yet it is more essential for the surgeon to be well versed in pathology and therapeutics (or in other words, to be an accomplished physician), than it is for him to know the attachments of every muscle in the body, or all the possible variations of arterial distribution."

It must not be forgotten, however, that experience teaches the abdominal surgeon many things which the medical practitioner never learns, so that the after-treatment of a celiotomy should be looked at through the eyes of the physician, but from a surgeon's point of view. Above all, the tendency to do too much is to be controlled.

The methods followed become largely matters of routine and need not be varied except to meet unusual conditions. Without reciting any particular plans in detail, mention will be made of a few features that are still open to question. Absolute quiet and rest, the withholding of everything from the stomach for 24 hours, liquid diet for five days—these seem to commend themselves to most operators. By some the administration of hot water is begun immediately after the operation. The kind of liquid diet allowed the patient is a matter of some importance. Many surgeons will persist in giving sweet milk as the first food after an abdominal operation and in claiming that it is the most digestible of all aliments, in spite of the fact that it disagrees with nine out of every ten patients. The very necessity of having to continually dilute it with lime water or prepare it in other ways is proof that its digestion is usually difficult and uncertain. In these cases, milk decomposes in the bowels, causing gas and producing constipation. Strictly speaking it cannot be regarded as a liquid food. More rational would it seem to employ, for the first day or two at least, concentrated liquid nourishment in the forms which leave little or no residue and which are digested wholly or in part by the stomach juices—such articles as beef extracts, animal broths and albumenized drinks.

There is much dispute over the use of morphine after abdominal operations. The older operators invariably administered opiates, believing it best to relieve the pain at all hazards, and the general surgeon, more than the gynecologist at the present day, is prone to give them. Histories of the cases in which morphine had been given by former surgeons showed plainly its bad effects and there was a time when it was practically not given at all. It is now administered by some operators in almost every case; others give it occasionally in one-sixth, one-eighth, or one-tenth grain doses; many yet do not find use for it. The records will undoubtedly prove that, all other things being equal, those cases in which it is not used get along better. The administration of small doses would appear worse than useless, for they only tease and do not relieve the suffering; while, in quantity sufficient to quiet the pain, morphine does harm, chiefly by constipating the bowels and favoring the occurrence of tympanites.

This subject of bowel-movements after celiotomy deserves and has lately received special attention. In normal cases, unless direct indications should arise, the practice has been conservative. But recent writers, particularly Byford, of Chicago, and Ramsay, of Baltimore, have urged the expediency of securing evacuation of the intestines at the earliest possible moment after the operation. There are evident reasons for this activity. In a word, it succeeds in heading off the complications so apt to occur and there are presumably no arguments against it. Whether the bowels are moved early or late, it is well to have a definite plan with regard to inducing their action. The agents to be relied on are calomel, the salines and some form of enema. These

can be employed in the doses, at the times and under the conditions suitable for each case.

The replies to inquiries on this question reveal some difference of opinion. Byford pays "less attention to bowel movements than to the voluntary expulsion of gas," and gives his method as follows: "1. High glycerin enema before patient is removed from table. 2. One drachm of magnesium sulphate every hour until flatus is expelled freely per rectum. 3. If flatus is not passed 12 hours after operation I give a glycerin enema every 2 hours (preferably high) until the flatus passes freely per rectum between enemas."

Clark adheres to the principle of this method, but gives calomel in divided doses on the night of the operation, "followed the next morning by a simple soap-suds enema." Martin apparently believes in the same theory, using calomel and salines alternately and "glycerin enemas every 12 hours to keep the flatus going." Murphy covers the same ground, combining the methods of the last two with modifications. Senn moves the "bowels at the end of 24 hours." Robt. T. Morris: "Bowel movements obtained on second day by high rectal injection of hygroscopics for osmotic effect." Boldt and McBurney have the bowels moved on the second or third day, the latter usually avoiding calomel, believing that this "generally causes at least a few hours of discomfort when given soon after operation." Joseph Price: "No hurry about moving the bowels, if the patient has been well-purged and prepared. If gas is annoying, soapy water or turpentine enema, rarely required." The remaining answers do not indicate any departure from common methods.

Tucker Building.

To Cut or Crush in Stone of the Urinary Bladder.*

By Stuart McGuire, M.D., Professor of Principles of Surgery and Clinical Surgery, University College of Medicine; Surgeon in Charge St. Luke's Hospital; Visiting Surgeon Virginia Hospital, Richmond, Va.

The question whether to cut or crush in cases of stone in the urinary bladder is no new one, as lithotomy and lithotrity have both been practiced for over a thousand years. The opinion of the profession as to the relative value of the two methods has varied, first one and then the other gaining ascendency.

In the first century Celsus wrote a clear description of lithotomy, and the operation was frequently performed. In the tenth century Albucasis described an instrument which could be passed along the urethra, "seize the stone, crush it, if soft, and remove it." In the seventeenth century Beaulieu, a Franciscan monk, performed several thousand perineal lithotomies and is reported to have operated on thirty-eight consecutive cases in Versailles without a death.

In 1815 Civiale invented his litholabe and some years afterwards reported seventy-eight cases in which he had crushed and removed stone, with five deaths. In 1878 Gross advocated the cutting operation and reported 165 lithotomies, with 14 deaths. In the same year Bigelow invented his evacuater, and the possibility of doing lithotrity at one sitting (or litholapaxy as it was then called) created great enthusiasm. In 1884 Henry Thompson reported 116 cases of lithotrity, with six deaths. In 1890 Hunter McGuire reported twenty-six cases of supra-pubic cystotomy for stone, with one death. In 1893 Chismore reported 54 cases of lithotrity, done by a series of short sittings under cocaine, with no deaths.

Having attempted to show the curious vacillation of surgical opinion as to the relative merits of the two operations in the past, I will now try to find expression for the accepted views of the present. I believe it can be most fairly done by quoting from new and standard text-books which treat of the subject.

White and Martin. "The two received methods of treatment are litholapaxy and cystotomy. Litholapaxy is in both adults and children the method of choice."

Lydston. "The supra-pubic operation is so safe in favorable cases that it is preferable to litholapaxy unless the surgeon is expert in its performance."

An American Text-Book of Surgery. "The possible methods of removing a given stone from the male bladder are perineal lithotomy, supra-pubic lithotomy and litholapaxy. The remarkable changes brought about by the introduction of the last named method has greatly reduced the field of the first two."

Wyeth. "The conditions in which lithotrity is to be preferred to lithotomy are rare."

Treves. "Litholapaxy is now the recog-

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nized operation for all cases of vesicle calculus in males."

Moullin. "Calculi must be removed from the bladder by crushing or cutting. The former is more common and has to a great extent superseded the latter."

Wharton and Curtis. "Lithotomy is indicated in cases not suited for crushing, although the recent improvements in supra-pubic cystotomy bid fair to make it the rival of the method by crushing in all cases."

From the extracts given it will be seen that both methods are advised, but the surgeon is taught by the majority of authorities to perform lithotrity as the operation of election and lithotomy as the operation of compulsion. In other words, that the cutting operation should only be done when the crushing operation is impossible. I believe this teaching is a survival of the pre-antiseptic era and does not accord with the practice of the modern surgeon. Twenty years ago when the use of the knife was attended by danger to life from septicemia, or slow and complicated convalescence from suppuration, it was undoubtedly sound. but to-day, with the aseptic and antiseptic technique and the perfection of the supra-pubic operation, it is false and misleading. From a limited personal experience with both operations, and a careful study of the literature of the subject, I believe lithotomy should be the operation most frequently performed and lithotrity reserved for a few carefully selected cases. The demonstration of the truth of this statement can best be made by a comparison of the advantages and disadvantages of the two operations under separate headings.

Mortality.—Figures seem to show that lithotrity is safer than lithotomy, but in making a deduction from statistics it must be remembered that they are based largely upon work done before the introduction of antiseptics; that simple and easy cases were crushed and difficult and complicated cases cut; and, finally, that the results of a few expert lithotritists are compared with those secured by a number of average lithotomists.

Requisite Skill and Experience.—Lithotrity is undoubtedly a more delicate and difficult operation than lithotomy. It is blind surgery, liable to be attended by annoying complications or dangerous accidents, and should not be undertaken by one not thoroughly familiar with the manipulation of instruments in the urethra and bladder. Lithotomy, especially if done by the supra-pubic route, is one of the simplest operations in surgery, and may safely be attempted by any one of fair experience in general operative work.

Injury to the Soft Parts and Septic Sequences.—It is claimed that lithotrity creates no breach of continuity of tissue, while lithotomy leaves a wound of considerable gravity. and therefore the former operation is followed by more rapid recovery. This is true in selected cases in the hands of expert operators, but in many instances where the stone is large and hard, and the surgeon less experienced, manipulations are prolonged and rough and there is considerable bruising and laceration of the mucous lining of the urethra and bladder. Copious hemorrhage is not uncommon and the bleeding points are inaccessible to direct hemostasis. There is practically no drainage and septic sequences sometimes follow, manifested by urethral fever, urethritis, cystitis, prostatitis epidydimitis or phlebitis.

In lithotomy, especially if done by the supra-pubic method there is no contusion of the mucosa of tho urinary tract, but simply a clean cut incision through unimportant structures. There is practically no bleeding and if it does occur from complications, it can be controlled by the ligation of vessels or direct tamponade of the bladder. If sepsis follows, which is unlikely owing to the free drainage afforded, it can be combated by irrigation of the wound, bladder and urethra with antiseptic solutions. The duration of convalescence after lithotrity is uncertain. It may be shorter than lithotomy —it may be longer.

Ability to Diagnosticate and Treat other Pathologic Condition.—Stone in the bladder is usually found at the two extremes of life. In the young it is usually uncomplicated; in the old it is often associated with enlargement of the prostate, severe cystitis, or vesicle tumors. Lithotomy has the advantage in both instances, as it avoids the dilatation of the undeveloped penis and small urethra of the one—with the danger of incontinence and impotency; and affords direct examination of the interior of the bladder in the other, making accessible to surgical correction any co-existing disease present, and affording subsequently the necessary drainage of the cavity of the viscus.

Permanency of Results.—There is certainly more liability to the recurrence of stone after lithotrity than after lithotomy. In old men with enlarged prostates it is impossible to be sure of removing all fragments after crushing, and it is also possible to over look a small stone in cases of multiple calculi. If a single particle is retained in the bladder it will act as an exciting cause to the predisposing diathesis and result in the production of a new stone. I recall the case of an old man with a sacculated bladder who was twice crushed for

stone. On his third return to the hospital I did a supra-pubic lithotomy and removed five small calculi. Since then he has remained well.

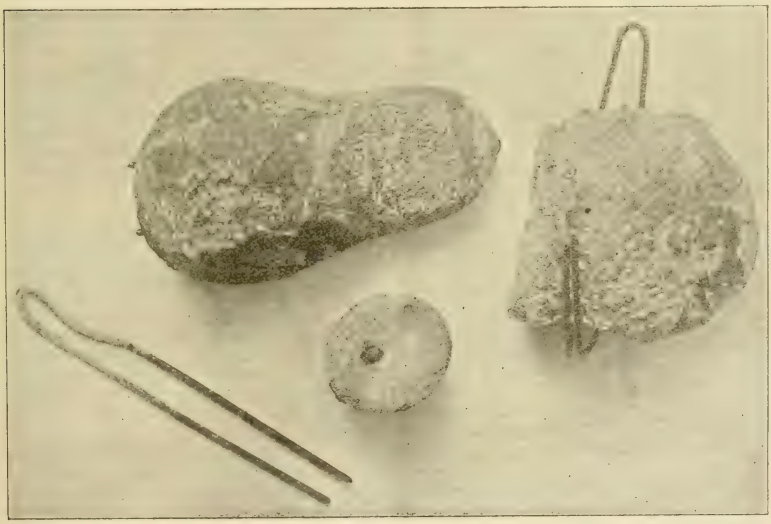
Simplicity and Freedom from Mechanical Complications.—While questions of economy have no place in surgery, and the fact that lithotrites and evacuators are expensive and perishable, is no argument against lithotrity, the simplicity and freedom from dependence on the mechanical action of complicated instruments is a strong point in favor of lithotomy. Many cases are reported where surgeons had clogging, bending or breaking of the blades of a lithotrite to occur in the bladder, and were forced to resort to the knife to complete the operation. Only recently I found myself in a predicament which would have been ludicrour if it had not been dangerous. I was crushing a soft stone of medium size in the bladder of a boy aged seventeen, who weighed nearly three hundred pounds; the operation of lithotrity being selected on account of the patient's obesity. The stone was readily seized and crumbled at the first turn of the screw. The instrument was open and several of the fragments caught and broken. It was then observed that the blades would not close. Every known expedient was tried to free the impaction but failed. A supra-pubic cystotomy was finally done, a sticky, gummy mass cleared from the jaws of the lithotrite and the instrument closed and withdrawn. A subsequent interrogation of the boy secured the confession that sometime before his admission to the hospital he had introduced a bolus of chewing-gum into his urethra, which had slipped from his grasp and passed into the bladder, doubtless forming the nucleus of the stone.

Range of Application.—Lithotomy may be done in any case and has no limitations other than those of general surgery. Lithotrity is admitted by its advocates to be contra-indicated in the following conditions.

1st. When the stone is hard and cannot be crushed by instruments capable of being used through the urethra.

2nd. When the stone is large and cannot be grasped by reasonable separation of the jaws of the lithotrite.

3rd. When the stone is brittle and the resulting fragments sharp and irregular.



4th. When the stone is fixed and encysted.

5th. When the stone has a foreign body as a nucleus, which cannot be crushed and removed.

6th. When the prostate is enlarged, or the bladder contracted, making it difficult to seize the stone.

7th. When there is a tight or impassible urethral stricture requiring a long operation to relieve.

8th. When there is ankylosis of the hip joint in a position embarrassing the movements of the lithotrite.

9th. When the general condition of the

patient is such as to make shock dangerous and rapid work necessary.

In corroboration of the above I wish to exhibit some specimens of stone with foreign bodies as nuclei removed by my father, Dr. Hunter McGuire, by lithotomy. It is obvious that an effort to operate by lithotrity would have resulted in failure.

In the history of the cases on which he operated for vesicle calculi there are nine instances of stones with foreign bodies as nuclei, as follows: Four hairpins, two bullets, one piece of bone, one piece of gum catheter, and one section of a silver catheter. One of these specimens has been lost, one was destroyed by the patient, three are now in the Army and Navy Medical Museum, and the other four are herewith presented.

I also wish to report a case in which I acted as his assistant. As soon as the stone was caught in the blades of the lithotrite and subjected to pressure it flew to pieces as if it were glass. The operation of lithotrity was at once abandoned and the bladder opened above the pubes. The fragments of the stone were gently removed with the finger and were found to have razor-like edges, which would undoubtedly have seriously injured the walls of the viscus had the first operation been continued.

Conclusion.—For fear of being misunderstood, permit me to repeat the views I maintain in regard to the two operations. I do not condemn the crushing operation, for I believe it is the best method to employ in certain cases. What I do condemn is the abuse of the operation by the efforts of its advocates to substitute it for the cutting operation in cases for which it is not suited. As previously stated, I believe *lithotomy should be the operation most frequently employed, and lithotrity reserved for a few carefully selected cases.*

A Case of Severe Mastoid Neuralgia.*

By John Dunn, M.D., Richmond, Va.

Severe mastoid neuralgia is, judging from my own experience, not of frequent occurrence. The majority of the text-books on the ear either omit to mention it, or do so only in a manner which is of little assistance to the physician who, for the first time, has a case under his care. Relatively to empyema of the mastoid antrum or osteitis of the mastoid process with their complications, it is rare, and yet to the otologist who has intelligently watched one severe case of this trouble, bringing into anxious play his highest diagnostic skill to decide whether or not the symptoms indicate intracranial involvement, who has found every remedial agent, save surgery, of no avail, and who, finally, having recourse to the relatively simple operation of opening the mastoid process, has given perfect relief to his patient, to him the clinical picture is as complete as any vouchsafed by medicine to her earnest votaries.

In all I have seen five cases of mastoid neuralgia. The first occurred in a full-blooded negro child, was bilateral and was reflex from eruption of the third molars, which had not a normal amount of space for their growth. In this case the whole mastoid process, including the outer part of the external auditory canal was the seat of a neuralgia, intense in degree. This region was extremely sensitive on pressure. The child complained of a similar area of hyper-sensitiveness over the external occipital protuberance. According to the mother, this neuralgia had continued for months and its severity could be greatly increased at any time by giving the child a drink of whiskey or of vinegar. Of course, here the indications were not for operation on the mastoid. The case, a clinic one, I saw only twice.

The next two cases I had the opportunity of seeing in consultation, and both occurred in delicate, frail, high strung young women, who at varying intervals throughout their childhood had suffered from otorrhœa, which had resulted in the destruction of the greater part of their drum membranes and their auditory ossicles. In neither case was treatment, external or internal, of any avail, until the mastoid was opened. In one case only sufficient of the process was removed to allow examination of the antrum, in the other the whole process was taken away. In neither case was any visible evidence of mastoid disease discovered, save that the processes in both cases were almost devoid of air cells, making the approach to the antrum a slow one. In neither case was pus found in the antrum, or in any of the air cells of the process. Both cases recovered completely and rapidly.

The fourth case was that of a slender, delicate mulatto woman, sixty years of age. When I first saw her she had been suffering greatly from pain over the right mastoid for some weeks. Beyond this I could get no satisfactory history of the case. The drum membrane, external auditory canal and process were normal in appearance. The mastoid, especially the region over the antrum, was very sensitive on pressure and the seat of almost constant aching, which

*Read before the Tri-State Medical Association of the Carolinas and Virginia, held at Richmond, February, 1901.

at times was agonizing. Temperature normal. This patient was unwilling to have the mastoid opened. She was under my care, at intervals, for several months, during which time the pain seemed not to markedly decrease, try what I would in the way of blisters externally and drugs internally. She submitted several times to the application of a moxa to the process. She finally left me and sought treatment elsewhere.

The last case, the subject of this paper, was Miss X, a highly intelligent, ambitious, high strung young woman. In March, 1899, she had an attack of earache, complicating a head cold, which kept her in her room for ten days. There was no discharge from the ear, the pain in which gradually subsided, the aural region, however, remaining sensitive for a considerable time after the acute pain disappeared. In April, 1900, she had a similar attack of cold with earache, which was at this time so severe and so unyielding to remedies that her physicians advised that she have the mastoid opened, as they could suggest no other way by which relief could be obtained. There was at no time any discharge from the ear. For three months this pain in the mastoid region, the process being sensitive to pressure, continued severe. For three months more she was constantly conscious of discomfort and of more or less pain in the region of the mastoid. At the end of six months, while the pain and discomfort had in a great measure subsided, exposure to a cold wind or taking a slight cold would cause it to return.

On December 25th, 1900, Miss X went for a drive. While out she felt the mastoid region becoming dull and heavy. This sensation continued all night. Next morning Miss X had a chill. The mastoid pain increased. This pain was deep seated and extended over the whole temporal region. During the next week she took her temperature several times, but never found it to be above 99⅘ deg.: generally it was about 99 deg. I saw her first on January 1st. Her temperature was then 98 deg. The drum membrane and the skin over the adjacent external canal were absolutely normal. Not the faintest visible evidence of congestion. The mastoid region was the seat of a bleb, following the application of a blister. At this time, one week after the attack began, the patient was suffering intense pain, deep in the mastoid and radiating toward the temporal region.

I did not see Miss X again for two days, when I found her suffering, in addition to the mastoid pain, greatly from stiffness of the left side of the neck and pain in the left shoulder; she was unable to turn her head; the blister had dried; there was no visible swelling over the mastoid, nor in any of its adjacent parts; the mastoid, however, was sensitive on pressure, the fossa and tip much less so than the region over and anteriorily adjacent to the upper end of the digastric goove. Drum membrane still showed no sign of congestion. Temperature 98 deg. Pulse good. Patient put to bed and sodium salicylate given every two hours.

January 4th. Pain in the neck is less: temperature continues subnormal.

January 5th. Patient now has very little pain in the neck; there is, however, little, if any, diminution of the pain subjectively, and on pressure in the mastoid, especially marked in the latter case over the upper end of the digastric groove. Patient begins to be exhausted from the long continued, unremitting pain. Drum normal; hearing normal. No external evidences over mastoid of infiltration or œdema.

January 7th. Pain continues unabated. Stiffness of neck returned. Temperature remains subnormal. Patient consents at last to having the mastoid opened.

The usual incisions were made over the mastoid which was then laid bare. The cortex was normal in appearance. The next step was to remove a strip of the cortex, one-third of an inch wide, from the temporal ridge to top of the process. The cells everywhere were found to contain nothing save air, those in the upper and lower thirds of the process were normal in color; those occupying the middle third, however, were markedly injected, and I found in biting away the cells that in places the bone separated from the lining mucous membrane.

This injected area corresponded with the area of greatest sensitiveness to pressure, and is in so far of considerable interest. The antrum was opened and found to be, so far as the naked eye could judge, in every way normal. The tip and large proportion of the cells in the process were removed. The wound was closed over its entire length save that at the bottom room was left for a strand of gut which served for drainage. This was removed twenty-four hours later, and a stitch put in. On the sixth day the stitches were removed. The wound healed by first intention and the resulting scars are trifling. The neuralgia disappeared with the operation; the pain and discomfort experienced during the process of healing being, according to the patient, "entirely different in character from that experienced before the operation.

Such, gentlemen, is the clinical history of a case of mastoid neuralgia, and these

cases increase in interest just in proportion to the intelligent care with which one studies mastoid inflammatory conditions and their possible sequelæ. It is no easy thing in all cases of mastoid pain to decide at once the exact location of the diseased area and the character of the disease causing the pain. In most cases of mastoid disease the indications for operative procedures are clear enough. In some, however, no matter how skillful, or how experienced the otologist, he will be unable to make up his mind to advise unqualifiedly that an operation is demanded, before some symptom develops which shows him all too clearly that his delay has been too long.

I recall here the case of a small child which had, when I was called in, acute, bilateral, purulent otitis media. The discharge from both ears was free, and yet the child continued to suffer intensely with a pain which she referred to the pit of her stomach. "I've got such a bad pain in my stomach," was her constant cry. The pain accompanied by fever, which lasted for several days, I felt sure was a reflex one, caused by intra-cranial trouble, and yet examine the child as I would I could discover no symptoms which would guide me to even a probable diagnosis as to its real seat. I watched most carefully for symptoms of brain abscess, of meningitis, of sinus thrombosis. No definite symptoms appeared. No outward sign of mastoiditis on either side. Both ears appeared equally and very sensitive on manipulation, and the child was too young to describe her subjective symptoms. Finally, the diagnostic signs of left side thrombosis of the petro-squamosal sinus appeared and a few hours later symptoms of brain abscess and meningitis. Here the antrum was not involved; the intra-cranial infection had taken place through deficiencies in the tegmen tympani. It is the having watched one or two such cases as this one that makes the careful physician, when in the presence of continued mastoid pain, anxious until he has interpreted its meaning.

In the case, the subject of this paper, we have the history of three severe attacks of pain in the mastoid region as a sequelæ in each instance of taking cold. In none of the three attacks was there any discharge from the external canal, no rupture of the drum, which, throughout the last attack, remained in every particular normal. The pain in the mastoid region had, during the first, grew worse and worse at each subsequent attack. There were no concomitant nose and throat inflammatory symptoms, during the last attack, in which the force of the inflammation exerted itself within the mastoid process. The pain in the mastoid after the second attack continued bad for three months; for three months longer the patient was constantly conscious of a fulness and of dull pain in the process, which remained over-sensitive on pressure. At the end of six months the constant discomfort in a large measure had subsided to return with any exposure to cold, or whenever the patient took cold. This condition of affairs continued until the attack which resulted in the operation. Not only was the mastoid process spontaneously the source of great pain, but under pressure was excessively sensitive, especially over the middle third, which was much more sensitive than either the region of the fossa or tip. Again, and it is of great interest to note that the middle third of the mastoid cells was markedly congested—a condition not found in the cells of either the upper or lower thirds. No where in any of the cells, antrum or middle ear was there any visible exudate.

Again, the temperature, which for the first three or four days was from half to one degree above normal, remained frem January 1st to January 6th subnormal, at times being as low as 96½ deg. There was a slight rise of temperature the day of the operation. The pulse was good. On the supposition that possibly we had to do with a rheumatic affection of the mastoid, salicylate of soda, in large and frequently repeated doses, was tried. This seemed for the first two days to control to a slight degree the pain and to lessen the stiffness in the left side of the neck. Later its administration was without effect. The pain returned and became so great that slight manipulation of the mastoid would nauseate the patient.

Sattler, in the Archives of Otology, Vol. xxvii, has given the fullest and most interesting account of uncontrollable neuralgia of the mastoid with which I am acquainted. He divides these cases into two classes, those of "purely neurotic origin," and those "in which surgical intervention leads to the discovery that a former, and in most instances remote, pathological process has been present and left traces." Cases in the first class show to the eye no pathological changes whatever; those of the second either by "hyperostosis or sclerosis of the cortical region with elimination or complete obliteration of the pneumatic spaces and antrum," or "rarefaction of the superficial or deeper cells with atrophy of the cortex or of the lining membrane of the cells, or, lastly, "no apparent lesions of the cells, but the presence of desiccated bone or other

products in the antrum or posterior pneumatic cells."

The case here reported comes into none of the classes mentioned by Sattler. An area of congestion is found, the forerunner of what well recognized pathological condition of the mastoid, I would not undertake to state; possibly the pain was rheumatic in character and similar to the rheumatic neuralgiae of the frontal sinus. At all events, a pathological change we had to do with, and not a purely neurotic trouble.

In conclusion: Severe neuralgia of the mastoid is met with from time to time; it may be reflex or strictly local in character; it may exist either with or without other visible concomitant conditions to suggest its cause; generally there is a history of a more or less remote, acute, be it purulent or catarrhal, inflammation of the middle ear and its adnexed antrum, the neuralgia appearing afterwards when the patient takes cold; it sometimes complicates simple abscess of the attic or acute empyema of the mastoid antrum and forces the surgeon to explore the mastoid, although in similar cases without this neuralgia he is satisfied with opening Schrapnell's membrane; it is in many, if not most, instances uncontrollable by other than surgical means, which consist in all save the cases with a reflex origin for the neuralgia in opening the mastoid process, to which it readily in nearly all cases yields. In some cases after persisting for weeks the severity gradually subsides; the neuralgia has, however, a tendency to recur each time the patient is exposed to or takes cold. We have no way at present to accurately foretell in what condition we shall find the contents of the mastoid process in these cases. It is well to remove the cortex over an area one-third to half an inch wide, extending from the region of the fossa to the tip before mutilating the cells that we may in each case examine them carefully.

The extent to which the cortex and air cells should be removed will depend upon the conditions found when they have been exposed. In those cases "in which a purely neurotic origin can be assumed, the operation of opening the mastoid (Schwartze) affords almost certain relief. It is not even necessary in all cases to penetrate to, expose, or break down the deeper pneumatic cells of this locality," (Sattler). And, lastly, the external incisions, unless we find contra-indications, should be closed by sutures at the time of the operation, i. e., we should not treat the wound as an open one.

In Germany it is proposed to lengthen the course of medical education to five years.

Have We a New Treatment for General Septic Infection?*

By Van Telburg-Hofman, M.D., Sumpter, S. C.; District Examiner Atlantic Coast Line; Surgeon Southern Railway; Surgeon Northwestern R. R. Co., S. C..

The treatment of General Septic Infections, under which general head I include: Toxemia, (Sapremia), Septicemia and Pyemia, as laid down in the text-books on Surgery, gives the unfortunate physician, who has to combat this serious malady, but very little information.

Beyond Prophylaxis, the thorough opening of the local source of infection and the antiseptic management of same, bold stimulation, vigorous support of the patient, draining the pelvis of the products of infection by free catharsis, to which in the last years the administration of antistreptococcic serum, the use of nuclein and other means to promote leucocytosis and thus to fortify the patient's resistance against invading poisons has been added, there is very little to be found.

When the infection has so far advanced, that pyegonic organisms have entered the circulation, that metastatic abscesses are forming in different parts of the body, and frequent chills and an intermittent fever indicate Pyemia, then we are almost helpless and the prognosis cannot be but an unfavorable one.

I said "unfavorable," but the method of treatment, which I am about to propose and describe, has shown and convinced me through results in more than one instance, that there may be a treatment for the existing disease, beside the prophylaxis and methods cited above.

I will first give a brief history of the cases in which the treatment was used by me:

Case 1. Ditney T.; colored; married; 40 years old; was sent to the Private Hospital of Dr. S. C. Baker, at Sumter, S. C., on July 5th, 1900, with a history of uterine trouble and an offensive leucorrhœa.

Her temperature at noon was 102.4, pulse 104. An examination was made which resulted in the diagnosis of Intra-uterine fibroid polipi, which were sloughing. At midnight the temperature was 105; pulse 132, and after giving the patient a green soap douche, followed by a douche of Bichloride 1-2000, the uterus was curetted. Next morning the temperature

*Read before the meeting of the Tri-State Medical Association at Richmond, Va., February 26th, 1901

was 98.6; at noon 103. There was an abundant, very offensive discharge from the vagina. Douches of Bichloride, creoline, permanganate of potassium, etc., were continued, stimulating treatment, whiskey, strychnine, quinine, beef-juice, panopepton, etc., were kept up for several days, without, however, improving her condition in the slightest.

On the 9th of July she had two distinct chills, the fever going up to 104.2 and down to 98. The pulse was hardly perceptable, she vomitted, there was marked tympanitis, great suffering, restlessness and free perspiration. This condition, indicating septicemia, with distinct chills twice a day, (pyemia), continued till July 12th on which day I requested Dr. Baker to allow me to try a treatment, which Dr. Fochier, of Lyons, calls "The production of an artificial suppuration" and which is produced by the Hypodermatic injection of Oleum Therebenthæi.

A hypodermic injection of fifteen miniums of the spirits of terpentine was given in the upper part of the left thigh. The *result was remarkable.* The temperature from an intermittent became steady, although it remained high for several days. Vomiting discontinued, tympanitis disappeared, delirium gave place to a clear mind, defacations became more natural, all symptoms improved and two days after the injection the patient was hungry and seemed to relish her nourishment. The stimulating treatment as well as the creoline douches were continued and patient's general condition improved till on the 18th of July, when again the temperature fell from 103 to 90, there was another chill, the fever in the evening registering as high as 103.5.

Another injection of terpentine M. 15, was given her. This time the point of injection was chosen in the arm, the upper left arm, and the same results as I have described above followed promptly. For a few days the temperature remained high but steady and gradually came down to normal. The pulse improved in volume and normal frequency and on July 23 she went home, although against the advice of her physician.

I have seen her several times since. On August 1st the abscesses on the thigh and the arm were opened and a very thick and yellow pus was found, the abscess on the thigh containing as much as two to three ounces. There was no odor to the pus except that it revealed the presence of terpentine. It was thick and creamy, of alkaline reaction, it was of the character formerly called laudable pus. After we had removed it the arm and thigh were bandaged and three days later the abscess on the thigh had entirely healed, while there was still some discharge from that on the arm. This, however, healed up within one weak, not requiring any surgical attention except an aseptic dressing. Our patient is now attending to her daily work, as well and heart*y* as she ever was in her life.

Case 2. Mrs. N.; married. Gave birth to her first child in the early part of September, 1900, and was attended by a South Carolina Mammy, with the result, that there was infection, puerperal fever, septicemia. When I saw her about one month after labor the most marked manifestation of the puerperal septicema was Phlegmasia Alba Dolens in the left leg. It will take too long to give all other symptoms and it is sufficient for my purpose to speak of this one alone. The usual treatment, elevation of the affected limb, which was wrapped up in cotton batting and covered with oil muslin, was given; but this local treatment together with constitutional measures, as indicated in these cases, did not produce any improvement, to the contrary the other leg, the right one, soon showed swelling, pain on pressure, etc

I gave her a Hypodermic injection of Oleum Terebinthinæ, mm. 20, in the left upper arm and five days later the temperature was nearly normal; the right leg was normal, while the swelling in the left had almost disappeared. So marked was the constitutional improvement in this case, that her father took her to his home ten miles in the country, where she could not get any medical attention and the only medication she took with her was a tonic. She returned to the city in about a fortnight came to my office and after a good course of tonic treatment resumed her daily work at home.

Case 3. This was one of Phlegmasia Alba Dolens, following typhoid fever in the hands of Dr. E. J. Nixon, of Wilmington, N. C., who gave his patient the treatment at my request and reported the same results described in cases 1 and 2.

This treatment, of which I became in possession through my Brother Dr. Francis Hofman, who, as assistant to Professor Treub in the Gynecological and Obstetrical Clinic in Amsterdam, has seen its beneficial effects, was first advocated by Dr. A. Fochier, Professor of Clinical Obstetrics at Lyons, France, and was published by him in an article in the "Lyons Medical."

Fochier says: There are cases of Puerperal fever (which disease the author has taken for example), which are rare but are by no means the exception and in which we

see a general infection improve suddenly at the same time that a local suppuration has appeared. These local suppurations are for instance: A phlegmon of the breast, of the iliac fossa, or the subcutaneous tissue; or a monoarthritis, a slow localized peritonitis or a salpingo-ovaritis.

Then again there are other cases, where there are undoubted symptoms of visceral inflammations and we see these inflammations diminish in severety without there being any improvement in the general condition of the patient. We notice that a diffuse subcutaneous phlegmon has a tendency to become circumscribed and suppurate, without ever reaching this result and often death arrives before suppuration has taken place.

It was in comparing these two types that he concluded to make use of the provocacation of artificial abscesses, which would be easy to treat, as a therapeutic means in puerperal infections.

It would take me too long to give you here a history of the results which Dr. Fochier reports from the use of an acid solution of quinine, a strong solution of nitrate of silver and how he finally came to the conclusion that Oleum Terebinthinæ was the best preparation.

The injection is not more painful than an injection of morphine. The signs of inflammation appear very soon, from one to six hours later, and in some cases it may be necessary to administer an anodyne for the pain, which however is very little, if any, when the hypodermic needle is well introduced in a cushion of adipose tissue. Other signs as redness of the skin may appear on the third day or later if the injection is made deeper.

There are two forms of suppurations caused by the injection of the terpentine, namely, the anthrax form, where there is a formation of acne. pustules under the epidermis and here the pus is let out through more than one channel; or there is an abscess that has to be opened to give the pus an outlet.

As to the frequency of making the injection, one should be guided by the severety of the case. Fochier seldom made more than two injections of from 15 to 25 m.m. in one case; while Thierry not only injected every other day, but kept the suppuration up by irritation of the wound.

It has only been my intention to give you the results of my Clinical experience, which substantiating the reports which I have found from others, who have given the treatment a trial, is the cause of this short paper. I do not pretend to explain theoretically the action of this procedure. From the small amount of literature which I have been able to find on the subject I will cite the following:

Fochier thought, that the blood could be purified by the presence of a suppuration and pus formation and that where these did not take place the blood would remain loaded with Materia Peccans (morbid matter) which poisoned the tissues and caused death. Accepting this theory, the microbes which caused the disease should necessarily be found in the pus. Investigations by Dieulafoy have shown, that such is not the case, that in only very few cases a very small amount of staphylococci or streptococci have been found and that as a rule the abscesses were sterile. The strong antiseptic action of the terpentine may account for this.

Chantemesse explained the pus formation by a Hyperleucocystosis which preceeds the formation of the abscess. He says: "To incerease the number of Leucocytes in the blood is to bring new soldiers on the battle-field to fight the Bacteria. The enemy at first victorious, is overwhelmed by the phagocytes." However, later it was shown by examinations of the blood, that the number of white bloodcorpuscles had not increased.

Mercardia believes, that antitoxines are formed in the abscess and that the action of these antitoxines cause the improvement. It seems to me that this last explanation is a plausible one.

As I said before, this paper has not been written with the intention to explain the treatment. I simply wish to report to you the experience, which I personally derived from its use, and you may be called upon to give your professional advice in cases of puerperal fever, where all efforts to combat the disease have been unsuccessful and where you are willing to resort to anything that may give you the faintest hope of improvement, I say, do not hesitate to employ the provocation of the artificial abscess, and if you, by the results, which are certain to follow, are convinced of the value of the harmless procedure, it may lead you on to secure it a place among the Therapy for general septic infections.

NOTE.—I shall be glad to hear from my fellow physicians, who having an opportunity to use this treatment, will kindly advise me of the results they have derived from it. To those who have more time and opportunity to make bacteriological and pathological investigations I will with pleasure send a list of the literature, names of periodicals and articles in which others have reported their experience.

One Day's Experience in General Practice.

By I. A. McSwain, M.D., Paris, Tenn.

At half-past four, a. m., the telephone bell rang violently, followed by a message to go at once to the hotel to see Mr. F.

This man, aged 50, had been operated on one week before, for tuberculosis of the left testicle, the whole organ having been removed. The wound healed without trouble, and the drainage had about closed. He had passed urine without assistance up to the present morning, but now was suffering from retention. We advised a hot hip bath and irrigation of the bowels, which was done, but no urine passed. An effort to introduce a catheter resulted in failure. We went for chloroform, and after partial anesthesia, passed the instrument into his bladder. A good quantity of urine passed, which was followed by a tablespoonful or more of pus. As he had previously had no symptoms of cystitis, but had complained of pain in the perineal region, both before and after the castration, the pus was most probably from the frontal prostate gland.

Two days afterward a sudden severe rigor was quickly followed by a temperature of 106. The next day another rigor, temperature 105. He was ordered thirty-six grains quinine in three doses six hours a part. A day later explored with a needle and found deep-seated an abscess cavity. A free incision in the median line of the perineum gave vent to a large amount of pus. The sac was irrigated and drained daily for a week afterward. The patient rapidly improved. Three days after this incision the urine was found making its way through it. A soft rubber catheter was left in the bladder for two days and then the patient taught to use it himself three times in the twenty-four hours. The fistule appears to be healing rapidly.

But to return to the "One Day's Experience." The day was cold and rainy, and we much preferred a cosy office and a good fire, and had just got comfortably seated, supposing that now and then a patient might straggle in with some minor ailment, when a man came in from the country riding a grey mule, and begged that we go out five miles to see Mrs. M.

After some muttering against the fates, we got in behind a splendid team and drove out to the place. (It might be called a house) and it had the appearance as though it could have been built in a night—a box concern about 12x12 feet containing a little wood stove, a bed, several boxes, a trunk or two and two chairs, a man, woman and two children, the youngest of which was ten days old. The mother was pale and anxious, temperature 104, pulse 120 and weak, abdominal pain, tenderness, and tympanites. An examination revealed a hot, tender vagina, and a subinvoluted womb and endometritis, and a beginning pelvic peritonitis.

The track of the midwife was clear, and unmistakable. Of course, she had ignored entirely common cleanliness, and knew nothing of the laws of antisepsis. History of the case was that of fever and pain from the second day after delivery attended by a foul discharge from the uterus.

With hot water and creolin we proceeded to irrigate the vagina, then introduced a speculum, and with an irrigator washed out the womb. Next cut a strip of gauze and carried it well back to the fundus, leaving it protruding into the vagina as a drainage tube. Next saturated a tampon of prepared wool with a solution of icthyol and glycerin, prescribed 5 grains calomel to be followed by an enema in four hours. Prescribed also 2 gr. acetanilid, 1-60 gr. strichnia, and 1-4 gr, morphia, to be given every four or six hours, if patient was suffering. Put her to bed between clean, warm sheets. She expressed herself greatly relieved, and we drove off in the rain. Home? No. Met a fellow driving a two-horse wagon; had been to town with a load of wood—and after a doctor. His sister was very sick and hoped we would return with him and see her. We went, through a long and muddy lane, over a hill, across some gullies and over stumps, but reached the place—cold and drizzeled. two o'clock and no dinner, and none in sight. The young lady, otherwise reasonably well favored, presented the usual hideous symptoms of facial erysipelas in its most pronounced form. Nausea and vomiting, rigors, temperature 104, pulse 130, cardiac oppression, intense headache and general muscular pains. Ordered frequent sponge bathing, a cathardic dose 5 gr. calomel, quinine in 6 gr. doses, and tr. chlor. iron, with strichnia applied to inflamed area and beyond it icthyol and lanoline equal parts. Give morphia to relieve pain

There is no specific treatment for erysipelas symptoms must be relieved. Tonics are usually indicated. Nutritious diet and proper attention to secretions and excretions antistreptococcic serum would probably be indicated, but the writer has had no experience with it in this disease.

The next case was a married lady with a sore throat, fever, swollen tonsils, enlarged lymphatics, and a whitish thin membrane covering over tonsils and uvula. This was

rather suspicious of a diphtheritic exudate, but on using a spray of Dioxid Hydrogen the deposit was easily washed away, and the diagnosis was that of follicular tonsilitis. The sequel justified this opinion, as frequent spraying of the throat, a quick purgation and the use of an astringent and antiseptic gargle, together with quinine and iron internally, resulted in recovery in two or three days.

But here is a man from the country again and requests immediate call to see his son, aged 6 years, with a sore throat. On arrival we found a well-defined greyish yellow exudate on one tonsil, temperature 102. A case of Laryngeal Diphtheria had occurred in the same family last fall, and the child had died with membranous croup, (so-called). The title ought to be expunged from text-books, and the title Laryngeal Diphtheria substituted; which would define the true character of the malady.

A case of diphtheria had also occurred about two weeks since in the family. Without hesitation we pronounced this boy suffering from diphtheria, and gave at once 15 c.c. antitoxin. He was reported two days afterward as convalescent.

We no longer dread diphtheria if called early in the case. Thanks to modern research, and scientific experiment, we have in serotherapy an agent which if used early and in sufficient dose, will in most cases break the fetters of this formerly much dreaded enemy of infantile humanity.

The short January day is far on in the afternoon, but I am requested to go with a neighbor physician to see a case that he says is somewhat obscure.

The woman, aged 35, had ceased menstruating six months ago and for three or four months supposed herself to be pregnant. A discharge of blood together with pain caused her to suspect an abortion.

At this examination (nearly six months since the last regular menstruation) under an anesthetic, there is an enlarged and tender uterus, a bloody discharge, the os partly dilated and soft, occasional slight pains, at times considerable hemorrhage. The cervix was forcibly dilated and the uterus curretted, irrigated with a hot creoline solution and loosely tamponed with gauze.

The next day on removal of the packing we found a large section of placenta which came along with the gauze.

The uterus was again irrigated and convalesence was speedy and uninterrupted.

This case is somewhat peculiar in the long time that had elapsed since the first symptoms of abortion had occurred, showing that a retained placenta may be the cause of long continued distress in the way of hemorrhage and consequent general prostration, and yet there may be but little sepsis, as there had been none of consequence in this case.

One other point. The physician who had been called in about the time of the beginning of the symptoms had stated that she had most probably aborted, but did not make an examination. We should always be careful to make a diagnosis in such cases and see to it that the uterus is empty and clean. The commencement of many of the ills of woman is a neglected abortion.

Ten o'clock at night found us tired of the ways of this troublesome world, and turning to our mail find a sweet good letter from an appreciative patient, for whom we had performed some service, which was very refreshing, but this exuberance of feeling was quickly counteracted by an insulting letter from a delinquent whose note was long past due, because we had taken the liberty to remind of the fact.

We sought our bed reflecting on the varied and arduous duties of a country doctor, and committed ourselves to Him, who has gone to prepare a place for careworn and self-denying people where it is said no evil of any kind can find a lodgement, and where perpetual health will be the common lot of all the inhabitants.

Has Cod-Liver Oil a Place in Pediatric Therapeutics?

By Henry Y. Ostrander, M.D., Brooklyn, N. Y.

We hear so much talk nowadays about the marvelous virtues of Oleum Morrhuæ in Phthisis Pulmonalis. We are told by presumably honest enthusiasts of the almost specific influence which cod-liver oil exercises upon the course of a chronic bronchitis, upon the periodically recurring "winter cough of the old man" and the asthmatic catarrh of the elderly woman. "Pad the nerves with a layer of fat and the term 'neurasthenia' will be eliminated from our nosologies."

Among the innumerable pages of voluminous literature devoted to the therapeutics of cod-liver oil, we are in danger of receiving the impression that this dietetic remedy of our Materia Medica finds its most legitimate employment and enjoys its greatest usefulness in diseases affecting the adult organism. "Phthisis Pulmonalis," "Chronic Bronchitis," and "Neurasthenia," we must confess, are certainly maladies afflicting more frequently individuals of mature age than those whose constitutions are yet undergoing physiological development.

Nevertheless, the sphere of beneficial, therapeutic activity of this animal oil, notwithstanding the apparent predominance of testimony to the contrary, is by a means limited to systems that have advanced beyond the period of puberty. It is the child and the infant upon whom its curative powers are manifest as positively and permanently as upon the man or the woman. In fact, the most convincing evidence of its inestimable medicinal value is not infrequently based upon results obtained from its use in pediatric practice.

The popularity of a remedial agent with the laity is largely determined by the presence or absence of those physical attributes which contribute to its palatability. The naturally disgusting properties of pure Norweigan Cod-liver Oil are so difficult of correction by flavoring adjuvants that they usually prove sufficient to prejudice the parent when considering the advisability of administering it to the child. And I fear very much that this common and undeniable fact too often excities the sympathies of the physician to the detriment of the patient.

Every doctor must appreciate the truth that it is one thing to prescribe Cod-liver Oil and quite another thing to have the patient take kindly to it and thrive upon its nutriment. Not only is this a discouraging feature with the adult case, but far more frequently is it the cause of failure in his treatment of the child and infant.

Infancy and childhood tax the resources of the most skilled therapeutists. Perversity of disposition, immaturity of body, and consequent undeveloped powers of functional activity, combine to thwart the efforts of even the best practitioner.

But the profession must certainly feel that they cannot conscientiously sacrifice 'remedial benefit' for the sake of 'palatable medication.' And, what is more, the possibility of securing this 'remedial benefit' by the administration of Cod-liver Oil in the affections peculiar to infancy and childhood is daily demonstrated in the practice of pediatricians the world over.

I do not wish to be understood as suspecting my professional brethren of therapeutic negligence in omitting to practice this "offensive substance" when pathological indications demand its exhibition, but I do sometimes apprehend the danger of their missing the chances of a promising initiatory treatment by mere hesitation.

"It is a delightful occupation of the physician to advise the giving of Cod-liver Oil to the infant; but the charm of the prescription is lost when the mother attempts to perform the duty."

Now, if the author of the above quoted extract means for us to regard his remarks in the light of rhetoric, or linguistics, we must acknowledge that the wit and humor of his sentiments have been most cleverly and happily expressed; but if we may be privileged to consider the same from the standpoint of practical pedriatricians who have been trained by an actual, professional experience, then we are obliged to conclude that this particular writer must have been peculiarly unfortunate in his selection of Cod-liver Oil preparations to have encountered such adversion and opposition to its administration as the excerpt would seem to suggest.

In the following reports copied from my clinical records of private cases and which I here take the liberty of presenting, the special preparation which I employed is an emulsion of Cod-liver Oil as closely resembling the product of physiological, fat digestion as laboratory art can produce. It is uncontaminated by those adventitious and deleterious substances so necessary to the formation of ordinary emulsions. Its chemical purity and preservative qualities prevent decomposition and fermentation. Because of the complete pre-digestion of its fats outside the body, absorption and assimilation are affected without further preparative elaboration on the part of the viscera. In other words, it demands no digestive activity of a feeble, infant organism already exhausted in vitality for its appropriation. And last, but probably not the least, it represents not only a specifically valuable food in a state of pre-digestion, but also a food the naturally disgusting properties of which have been rendered almost delectable.

When a physician feels called upon to record the clinical histories of patients met with in his medical practice, he will do well, especially if he desires that the same may prove of value to another, to select for presentation such representative, or typical, cases as illustrate most inclusively the characteristics of the particular affection. The following reports have been chosen with that object in view:

Case No. 1. J. W., female child, aged 12 months; father tuberculosis, mother healthy; nursed at the breast; came under my care in August, '94. Symptoms: Fretful, peevishness, irritability, disinclination to be fondled or petted; profuse perspiration over head during sleep; delayed dentition; only two teeth cut; a sour, fœtid, foulsmelling diarrhœa; suffered one convulsion at ten months of age. The expression of features was old, wise, heavy, careworn.

Treatment:—Proper artificial feeding

with cream in increased proportion. Hydroleine (a hydrated cod-liver oil) in half-drachm doses three times a day between feedings. Improvement was pronounced and progressive. The child's disposition was entirely changed. The diarrhœa stopped within two weeks; perspiration disappeared; insomnia completely relieved. I directed the "Oil Treatment" to be continued for six months. At the expiration of this period the infant presented the picture of robust health.

Case No. 2. C. N., male child, aged 4 years; father and mother both tuberculous; condition when first examined at my office in '95: Epiphyseal enlargements of the radius and ulnar in each forearm; fontanelles closed at three years of age. Outward curvature of the shafts of both tibiæ. Nodules on the ribs at the junction of the bone with the cartilage. Skeletal muscles much emaciated and the walk was feeble and unsteady.

Treatment:—Hydroleine, one or two dr. three times a day between meals. Result: Increase in weight of one pound every week for two months. Strength speedily developed and all symptons ameliorated. The osseous deformities began to disappear; after one year of oil treatment no signs of previous Rachitic lesions persisting.

Case No. 3. B. O., female child, aged 6 years; father healthy; mother distinctly tuberculous. Physical appearance at time of first visit (March '96): The head was square-shaped, like a box; the sternum projected like the breast of a pigeon; the abdomen was round and protuberant like an inflated bag; the little, thin legs formed opposite arcs of the same circle. There was a posterior curvature of the spine in the dorsal region; and the anterior lumbar curve was somewhat exaggerated. The frontal eminences and parietal bosses were abnormally prominent.

Treatment:—Hydroleine, 2 dr. 3 times a day, 3 hours after meals. Effects: The diarrhœal discharge ceased within 21 days. The nausea and vomiting were corrected during the first week. The profuse sweating about the head was relieved in two weeks. Intestinal dyspepsia and flatulent distension were overcome in a fortnight. By the end of the 2nd month the child had gained 12 pounds. At this stage of recovery I referred the case to an Orthopedic Surgeon. Just four years subsequently I examined the patient again and found scarcely a trace remaining of the old rachitic condition.

Sweet spirits of nitre is said to give good results used as a local application in ivy poisoning.

Lithemia.*

By Dr. Addison E. Jones, St. Louis, Mo.

Early in 1900, during a visit to Hot Springs, Arkansas, I had my attention drawn to a salt of formaldehyde which had found favor with many of the physicians of that popular resort, and was even at that time extensively employed by them in the treatment of the uric-acid diathesis and also in infections of the genito-urinary tract. This resort is much frequented by gouty and rheumatice subjects and its physicians skilled in the treatment of lithæmia. I became, therefore, much interested in the study of the new chemical that had proved so efficient in their hands. I was told of many interesting cases in which it had acted favorably as a solvent of uric acid and its combinations. Under its use the deposition of the offending substance in the joints, tendons and connective tissue seemed to be prevented and deposits already formed gradually diminished, with the result that great relief was experienced by rheumatic patients. Although the acid reaction of the urine of these patients continued and in some cases increased, yet the urinary deposits of uric acid ceased to occur, even when such urine was allowed to stand. The disappearance of brick-dust deposits did not result from a diminution of the amount of uric acid excreted, but rather to the extraordinary solvent property imparted to the urine by the dosage of Cystogen. Cystogen is the name given to the formaldehyde salt, which should be technically called hexamethylen-tetramin. The action of the chemical in the treatment of disease seems to depend upon the fact that Cystogen, when in solution at the blood temperature partially decomposes, with the evolution of formaldehyde. This reaction, however, takes place so gradually, in the fluids of the body, that no irritative effects are to be observed. The functions of the stomach and digestive apparatus are not disturbed, yet it is best given with a copious draught of water, water being an important aid in the treatment of the lithæmic and urinary irregularities, diluting the secretions.

Next to tuberculosis and the ephemeral fevers there is no condition that the physician is so frequently called on to treat as the many phases of the uric acid condition. This condition, too, is not satisfactorily reached by any medication with which we have hitherto been familiar. The salts of lithia, so much in vogue, of late, have not retained the confidence of observant physicians to any great degree and the gastric and urinary disturbances, frequently

attending their continued use, lead us to seek other and better means of dissolving the urates and keeping them in solution until excreted. Until we are enabled to control the faulty metabolism, we must content ourselves with efforts to remove its offensive products. Over-eating and over-drinking, together with insufficient muscular exercise, are important factors in the encouragement of this nutritional disturbance, and patients should be restrained in these indulgencies, so far as possible; but as a rule, the physician must rely upon means for the removal of the uric acid and the urates, if he is to have any success with the average patient.

The baneful effects of lithæmia are seen both in the circulation and in the genito-urinary tract. In the circulation uric acid has a two-fold action, first: through its physiological action, it effects the vaso-motor and cerebro-spinal systems; second, its deposition in the joints, tendons and connective tissue produces local irritative effects, as seen in gouty and rheumatic subjects. In the genito-urinary tract its presence produce irritation and inflammation from the passage of its sharp crystals; and concretions or calculi that obstruct the passage and inflame the kidneys and bladder.

In the above conditions Cystogen has proven of great value. It has enabled me to obtain promptly results almost impossible by other means. To illustrate I give a few reports of cases in which it formed the important treatment:

Case 1. Occupation, physician. Gentlemen, age ——. Nativity, U. S. For the past three years has suffered from periodical attacks of colic; the pains commencing in front and to the left side of abdomen, ranged down to the bladder and testicle. The pain, as he expressed it, was of a sickening character and often caused vomiting. These attacks rarely lasted longer than ten or twelve hours, and had the peculiarity of recurring every Sunday for eight successive weeks. Great depression of vital powers followed each attack, lasting usually three or four days. After the paroxysms the urine was voided at frequent intervals, and caused great pain and tenesmus in passing. On examination it was found to contain mucus, pus and blood in considerable quantities, was of a very offensive odor and generally remained in this condition for three or four days. Great care was observed in his diet, as meat or alcoholic drinks precipitated the attacks. Some months ago he consulted a surgeon in one of our western cities, who thought the paroxysms were caused by a bruised testicle and advised castration of the affected testicle. He submitted to the operation, but finding no relief consulted a prominent M. D. of St. Joseph, Mo. He advised Cystogen in 5 gr. doses several times daily. Diagnosis: Renal Calculi. After six weeks of medication the following report was made: Dr. G. has religiously adhered to the treatment you prescribed for him, and at this writing claims to have had but one attack since beginning the Cystogen, and this occurred during the first week of treatment. He has a good appetite, eating of every dish set before him; has gained several pounds in weight, and enjoys robust heath. He still takes the Cystogen, but intends discontinuing it at an early date.

This is a beautiful illustration of the action of Cystogen upon the uric acid condition, primarily as a solvent; secondarily as a prevention.

Case 2. Miss C., age 27, greatly emaciated, has great pain on pressure over right kidney; gives history of repeated attacks of colic, during which there was vomiting and great physical depression. Upon examination, the urine was found to be filled with pus and blood, and was voided frequently with much distress. Diagnosis: Pyelitis, caused by nephritic calculi and cystitis. The patient was put to bed and told to drink water freely; after which she was given Cystogen in 5 gr. doses five times daily. This treatment was carried out to the letter, and under the influence of good nursing and a nourishing diet, soon rallied and was permitted outdoor exercises daily. She continued the treatment for three months. Her condition at the present time is as follows: The pain over the right kidney has entirely disappeared. There has been a gain of ten pounds in weight; no recurrence of the attack in the previous two and a half months. The urine shows no pus and has assumed its normal color.

Case 3. Gentleman. Age 68, had been in fair health up to five years ago. Since that time he has been troubled with his kidneys and bladder to such an extent that he was obliged to pass his urine from four to ten times at night. Examination of urine showed considerable uric acid, mucus and some albumin. (This latter I think came from the mucus, of which there was considerable.) After four days dosage of Cystogen, was compelled to get up only twice during the night. At this writing he retires at 9 p. m., and aries at 5 a. m., without interruption. He has gained eight pounds in the past month, and is still on small doses of Cystogen given three times daily.

The New Century.

By T. B. Greenley, M.D., Meadow Lawn, Kentucky.

The 20th Century is here and everybody should be glad to live to see the end of one century and the beginning of another.

When we take a retrospective view of the past century, and consider the great advancement made in all branches of science, the new discoveries in medicine and the arts, to say nothing of the great inventions in different kinds of machinery, we are convinced that greater progress has been made than in any century during our era, if not than in all together.

We can only allude to a few of the great discoveries made in the last 100 years. The motive power of steam, both by ship and rail, was discovered in the last century.

The use of electricity in telegraphy was discovered in the forties by Morse and since used by telephone, motor power, lights and things, besides in medicine.

But the greatest advances have been made in medicine and surgery, especially in the treatment and prevention of disease. To-be-sure, Dr. Jenner discovered vaccine in the latter part of the 18th century, but it was used but little before the commencement of the nineteenth.

In 1846 anesthesia was discovered and became in general use during the fifties. We might also name the invention of the clinical thermometer and the hypodermic syringe, besides many other useful instruments in the managment of disease.

Then comes the aseptic and antiseptic treatment, which, perhaps, equal, if not surpass, any other advances in medicine or surgery.

The great improvement in the treatment of disease, both practical and preventive, have within the past century lengthened our longevity over 30 per cent. what it was 100 years ago, and can we not hope in the coming centuries to compete with the time allotted to man in the days of the wise King, to-wit, 70 years?

Toleration and Intolerance.

By T. Beath, M.D., Winnipeg, Man.

My remarks to-night will not have the usual complexion of addresses given on scientific topics to a body pursuing scientific studies. Such addresses usually usher into light some hidden truth, or, at least, *proclaim a new theory* and attempt to pass it. Some of you will remember that last year I showed you a healthy child that had been fed on cornstarch only, from it first week to its 18th month, demonstrating the fallacy of the statement, almost universally made, that children before 6 or 8 months old cannot digest starchy food. (I may say in passing that increased observation on an increased family in the same house, confirm the opinion that some families at least thrive on that food alone).

The consideration of any topic of that kind which in any small way attempted to exploit some new ideas or question some old ones, might be properly a scientific address. I shall ask you to-night however, instead of "dipping into the future, far as human eye can see," to traverse some of the paths of the immediate past, take a bird's eye view of some of the present with reference to medical treatment, noting the general trend of these courses and their incompatibility and try to reach some useful generalizations.

Perhaps one of the most apparent of such incompatibilities is the great good that venesection did to our progenitors no longer ago than forty years in nearly every disease to which flesh was at that time heir; now the inheritance has become so vitiated, the diseases so altered, or the generation's physical system so changed and weakened, that now bleeding is of advantage very rarely. Then "a bloody Molock presided in the chairs of medicine," now Hare says "bleeding is so rarely practiced that very many of the profession have never bled or seen it done." Then it was taught (Flint, 226,) that it increased the strength of the pulse, now it in all cases lessens the strength of the patient and the volume of the pulse.

The same is true of the use of water in fevers. Some years ago it was extremely dangerous in any severe fever to get a draught of cold water, and sure death to have it applied externally. To-day externally it is used regularly and copiously in nearly all high fevers and patients are encouraged to drink freely.

Cupping and leeching, very much in evidence 30 years ago, are practically abandoned in common practice.

Fifteen years ago almost every flexion or inclination of the uterus, normal or otherwise, was by overy one treated with a pessary; now these instruments are almost universally abandoned.

When one comes to the use of medicines one finds that the medical profession is almost as fickle in the use of pharmacopeial medicines as the public is in the use of

*A paper read at the Medical Students' Association, February 8th, 1901, Winnipeg, Manitoba.

patent nostrums, and those remedies which a few years ago were literally on every body's tongue, are to-day figuratively spewed out. Just in the same way as familiarity with Warner's Safe Cure, St. Jacob's Oil, and Kickapoo remedies has bred contempt, to the financial discomfiture of the manufacturers, in a way not a whit different have standard medicines affected the medical profession, for after trial sufficient to become acquainted with their good and bad qualities, they have mostly been discarded. It is rather a startling statement when considered for the first time that three-fourths of the medicines of 30 years ago are to-day described as useless or harmful in the diseases they were then prescribed for.

I will illustrate this by the fairest and most readily available examples I could find:

1842. (a) Braithwaite's retrospect, p. 30. 36 hrs.—58 leeches, venesection, 36 grs. calomel, 9 blue pill, 1 3 ung. hydrarg., 5 grs. opium. 36. Montgomery, incipient cancer of the womb.
47. Williams. Calomel, belladonna, croton oil, belladon, leeches, alum. Now the belladonna, leeches and alum are no good, and the croton oil and other drastic purgatives are harmful.
52. Paralysis, evidently cerebral. 40 m. tr. cantharides.

1842. (b) 26, Sodium chloride is specific in typhoid—in 97 cases not one died. Soda bicarb in typhus—"It is surprising how soon the tongue will clean and the collapse give way."
49. Acute rheumatism.

1842. (b). 26. Dr. Graves, Dr. Rush—rapid mercurialization for phthisis. 43. M. Paris.
58. On cholera—mercury a specific. 80. Phthisis, vomiting (antimony), night and morning a sure cure for phthisis; 174 straight cases.

That these quotations are not from irresponsible physicians, but represent the most distinguished talent of the day, may be inferred from the list of contributors: Ringer, Bennett, Broadbent, Wilks, Anstie, Collis, Christopher, Heath, Teale, Emmett, Spencer Wells, Benj. Ward Richardson, Clifford Allbutt, Lister, Spence, Paget, Sir J. Y. Simpson, &c.

1867. (a). Prof. Bennett, of Edinburg, assumes a critical attitude.
40. On rheumatism.
80. Phthisis—rawflesh and brandy —and refer to morning emetic of antimony.

Just here permit me to quote Austin Flint, 1886, on the treatment of phthisis as showing that my remarks are not highly colored, for these things are so strange I hesitate to state them without the most indubitable proof, you can hardly believe that in a disease of wasting and weakness, like consumption, any *sane man* 50 years ago, much less any *reputable physician*, and *very much less* the *whole body of reputable physicians* would treat it as it was treated. Flint says:

"A comparison of measures of management now generally pursued in this disease, with the measures in vogue half a century ago, shows a complete and radical change. Formerly general and local blood letting, cathartics, emetics, mercurials, counter-irritation, low diet, and confinement within doors were sanctioned by teachers and writers, and entered more or less into the treatment usually adopted."

It seems like one of the ironies of fate that the medicine which Flint placed *first* on his list of remedial agents in this disease, alcohol, is spoken of as follows by so correct an observer as Osler, in his practice of medicine:

"It was formerly thought that alcohol was in some way antagonistic to tuberculous disease, but the observations of late years indicate clearly that the reverse is the case."

And so fashions change. Permanganate of potash was once a favorite in acute rheumatism, now it is worthless. In diphtheria Campbell says: "Of 23 cases of diphtheria which occurred in my practice before I used permanganate of potash gargle, 10 died; of the 12 cases since none died." Wonderfully potent there also, now mildly advantageous.

45. "In strychnire we possess a drug which will *always* control the excitability of the medulla oblongata and restrain the attacks of the convulsions" in epilepsy. The only way it will do so now is to give it as we give it to gophers.

87. At the same time the fashionable treatment for diphtheria was swabbing the throat repeatedly, if necessary, with a 50 per cent. solution of strong hydrochloric acid. "This once made the patient will usually declare himself much relieved." If he could speak I should think that is what he would say. He would not want a second application. Under the same head we find the following: "The use of tonics (in this disease) has no reasonable excuse to recommend them." Also, "I do not think the French sufficiently look back to a comprehensive classification of disease; they fly off to a consideration of new mysterious forms and having laid down certain dogmas as to treatment bolster up their practice by un-

limited assertions." In view of some of the facts related we may doubt whether the French had a monopoly in this business.

1868. (a) For McWicks says truly as follows, page 39: "As a last example of former treatment let me quote: 102. Diphtheria—delicate child six years old—leeches, bled 12 hrs., 2 lbs. ipecac syrup with antimony in 3 days; after sixth day calomel, 2 grs., every half hour. Life was quietly extinguished."

Now, there are some medical men to-day, so positive in their opinions and so careless of the reputation of their predecessors, as to assert that the action of the same drugs and the same procedures 50 years ago had practically the same effect on the human economy (or waste) as they have at the present day. If this be so we are forced to the conclusion that in the opinion of the best medical men to-day three-fourths of the medicinal and general treatment given by doctors of a generation back was positively and materially harmful to their patients. I would definitely exclude from this statement such surgical procedures and nursing rules as are demanded either by ordinary mechanical axioms or the dictates of common sense; but the administration of drugs and such procedures as were then commonly meant by the practice of physicians in ordinary medical practice are to-day considered to have been to the extent indicated harmful.

This is rather a mournful spectacle. Thousands of conscientious physicians, "priests of a bloody Moloch," true, not only sacrificing the blood of their victims at his shrine, draining them of money as well as health, but sacrificing their own lives also, for those lives must be considered worse than wasted which result rather in harm than good to their fellowman. And yet these were the only orthodox, regular, legalized, licensed and registered officials to give *their ministrations for the afflictions of the race.*

Any one who refused to follow this line of practice was a heathen or heretic and subject, I suppose, to the extremest penalties for malpractice.

And is it all different now? Are we past that happy-go-lucky, hit or miss, kill or cure, transition period in medical practice? Have the drugs we now use been so proven, so mathematically proven, beneficial as to be henceforth beyond all controversy, or are we simply at the top of the wheel which will soon revolve to dash our medicines to the ground, crush our reputations beneath it and bring up into prominence some new quackery?

An experience of about 15 years in medical studies does not reveal to me that we are now any more stationary in this respect than at any previous time. The veratrum viride and tartar emetic in commencing inflammations are seldom used now; opium is questioned in peritonitis, iodide of potash and mercury as causing absorption after pneumonia are not considered valuable. Iodine locally in enlarged glands used to be our mainstay, a few years ago, now it is no good. If these remedies were still considered useful, but had been superceded by others more useful, it would be perfectly satisfactory, but where *authority* 10 years ago—Cheyne, Burgard, Ashby and Wright—said iodine produced absorption of enlarged glands, and *authority* to-day with no more reason than the simple statement says it increases the trouble, we are tempted to use authority and ignorance as synonymous terms.

Nor is the basis for the exhibition of most drugs on any firmer foundation than formerly; the *post hoc* and *propter hoc* are, in very many cases, confounded, and the fact that many cases get well after the use of certain drugs, together with the endorsation of some man with a good name, is for a medicine sufficient passport to even the fastidious stomachs of this 20th Century.

For example, of loose reasoning, one of the most popular and best proven remedies to-day is epsom salts in incipient peritonitis, the reasons assigned being:

1. If the bowels could be got to move, experience proved that the chances of the patient were better than if not moved.

2. The modus operandi is the carrying off of poisonous serum.

Now while I am not prepared to disprove this, nor yet to say that this is a modern mushroom, I do say salines are not yet proven remedial; for, experience with diphtheria, pneumonia and typhoid does not prove that serums are a disadvantage, and in the second place, recovery after salines does not mean recovery on account of salines. The moving of the bowels may indicate a milder attack, less intestinal paralysis, and a greater tendency to recovery independent of salines.

What then is my practical purpose in bringing these things before you? I would wish, as the title of my paper indicates, to advance with you the use in practice of two incompatibles, toleration and intolerance. And like that between calomel and antipyrin, the incompatibility is theoretical and apparent, not real. They can be used together to the advantage of your patients.

Prof. Pike—2 yrs. old reaction—para-di-

hydrong. benzene. C. H. Vrooman's prescription.

As I said, I would like to advauce with you the use of toleration and intolerance.

Certain things are now established: The efficacy of quinine in malaria, iron in anæmia, antitoxin in diphtheria, certain surgical procedures, certain germs as the cause of disease, &c.; let us hold fast to such, as the fundamentals of our faith in our profession. But in the vast realm of treatment in which there is now no definite proof that we have attained unfailing results, history teaches us to be careful not to dogmatise, but to be tolerant of the opinions of others and let us express our *opinions* as *such* and not as incontrovertible facts. History teaches that this dogmatism about uncertainties has been one of the most disastrous errors of all ages. In the religious field the annals of all the older churches, Presbyterian, English Church and Roman Catholic bring blushes to the cheeks of their present members from the blood spilt and cruelties inflicted from this cause. The old and acrimonious controversy between the Calvanist and Arminian is admitted on both sides to be on a subject that neither understands and is quite a matter of speculation.

In the medical profession the disgraceful abandonment of the dozens of Spion Kops held 30 years ago is due to the fact that the army was led to these untenable positions by following blindly the dogmatised opinions of some leaders of their days. These opinions the lesser lights made more dogmatic, for such positiveism is ever the mark of half-education and half-civilization, and I trust the enlightenment of the 20th Century may relegate it to the past. Let us then be tolerant in matters of opinion, even to giving credit to the homœopaths who though handicapped by restrictictions, have nearly as great practical success as regular unlimited practitioners.

Where then the intolerance? In excluding from the list of things proven those things which are merely opinions. This we should do as a matter of scientific honesty. Let the line of demarcation be sharp and precise, and you will wonder at the ease with which you can retain in your memory all the medical treatment proven efficacious; and if history repeats itself the great majority of those now used and not proven will in the lapse of years be buried in oblivion. If a man makes a statement as to the efficacy of a line of treatment, whether in print or verbally, he has a right to prove it, if he cannot his statement should be placed in the category of unproved opinions.

No man's authority, no matter how eminent, is sufficient, and unless absolute proof is given, let us be absolute in our refusal to tolerate in our settled list those things still subject to controversy. When the whole body of practitioners have been so grossly and gravely mistaken, no man's *ipse dixit* is worth much.

I am not recommending these things for your examination next spring; nor would I advise you always in practice to publicly expose the meagre contents of your Dara's chest of jewels, as you govern the satrapy over which you will preside, but in the humility born of knowledge do your best to add to the small store if only one item not forgetting to "Prove all things, hold fast to that which is good."

Resolutions Condemning the Giving of Division of Fees.

The Committee to which were referred the resolutions introduced at a meeting of the Chicago Medical Society on January 23d made the following report at a meeting held January 30th:

Resolved, That the offering or giving of a commission, or percentage of a fee, by the consulting physician or operating surgeon, the asking or receiving of such a fee or commission in any guise whatever by the physician referring the case, is dishonest, disreputable and unethical, unless such an arrangement be made with the full knowledge of the patient.

Resolved, Further, That a violation of this resolution shall subject the offender to expulsion from the Society. These resolutions were unanimously adopted by a rising vote.

Dr. Archibald Church introduced the following resolution: That it be the sense of the Society, that the fees ordinarily received by the attending physician in connection with cases requiring surgical operations in common practice are not adequate, and that the physician should have the support of the Society to increase his charges under such circumstances. This resolution was likewise adopted.—*Medical News.*

Percentage of Insanity Caused by Religion.

The report of the superintendent of the Central Hospital for the Insane, Indianapolis, has recently been submitted to the governor. The superintendent classifies the causes which led to the insanity of the persons committed during the year, and of the five hundred and seven nearly ten per cent. were made insane by reason of religious excitement. The report says that none of the latter was affected by hereditary insanity.—*Medical Record.*

THE

Charlotte Medical Journal.

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SUBSCRIPTION. $2-50 PER YEAR,

MEETING OF THE MEDICAL EXAMINING BOARD.

The Board of Medical Examiners of the State of North Carolina will meet in Durham, Thursday, May 16th, at 2 o'clock, P. M.

All candidates for license are expected to be there promptly at that hour. The new law requires each applicant to exhibit when he registers, at the beginning of the examinations, a diploma from a first-class medical college and cirtificate of good moral character.

A CONSOLIDATED JOURNAL.

The Interstate Medical Journal announces the purchase of the Stylus, the well known monthly of St. Louis, edited by Dr. Wm. Porter. The two publications will be consolidated and published under the name of the Interstate Medical Journal. Dr. Porter will be associate editor of the consolidated journal. The Interstate Medical Journal will now have some point to it and there is no reason why it should not make a mark in the world. This journal has a very consolidated history, it was founded in 1893 as the Tri-State Medical Journal, purchased the Peoria Medical Record in 1896, absorbed the General Practitioner in 1897, and now takes in the Stylus.

GEORGE L. KIRBY, M. D.

Another one of our distinguished physicians has been called across the river.

Dr. Kirby died in Raleigh on the night of February 19th, of pneumonia. He was in his 66th year, and was well known as the superintendent of the Central Hospital. He was born in Duplin county, studied medicine abroad, and after serving as surgeon during the civil war he settled in Goldsboro where he practised for nearly 30 years. He joined the State Society in 1867, was elected Vice-President in 1871, from 1878 to 1884 he was a member of the State Examining Board, and at the Charlotte meeting in 1898 he was elected an honorary fellow of the Society.

In 1892 he was elected superintendent of the State Central Hospital, which position he held at the time of his death. He was a man of ability and commanded the respect of all who knew him. In his death the profession of the State has lost a valued member and the people a great helper.

A CHANCE TO MAKE VACATION MONEY.

The following announcement is made by the literature committee of the Colorado State Medical Society:

The Colorado State Medical Society offers a prize of twenty-five dollars for the best essay, if deemed worthy of the prize, pointing out the dangers to public health and morals, especially to young persons, from quackery as promulgated by public advertisements.

The competition is open to all. Essays must be typewritten in the English language, and submitted before May 15th, 1901 Each essay must be designated by a motto; and accompanied by a sealed envelope, bearing the same motto, and enclosing the name and address of the author. The essay receiving the prize will become the property of the Society for publication. Others will be returned on application. Essays should be sent to the Literature Committee, Room 315 McPhee Building, Denver, Colorado.

We do not have to go far or hunt long in order to find the dangers to public health and morals from quackery.

Respectable people allow daily papers to come into their homes with the most offensive advertisements of all kinds. Abortionists, gonorrhea specialists, syphilis quacks, and frauds of many shades of ugliness carry the best space next to reading matter and no body makes a grunt. We hope there will be a generous response to the Colorado Society announcement. The country physician should be in position to give us some interesting facts in regard to this evil as the average country weekly is usually full of such deceptive advertising.

PHYSICIANS' ORPHAN HOME.

For some time past the physician has been known to be a very poor business manager. He can attend to 200 families for 40 years and then die and leave his own folks without a cent. We are glad to see that there

is a movement on foot to establish a national physicians' orphan home in Bristol, Tenn. The project was started by Dr. John S. Harris, of Minor Hill, Tenn., and after some discussion a committee was appointed to select a site. The Bristol Board of Trade has offered some unusual concessions and the home will be established in Bristol. With the help of the Board it is possible for the committee to secure a piece of property worth $100,000 for one-third its value. The organization will raise by popular subscription $35,000 with which the Hotel Fairmount property can be purchased and the home started at once.

Physicians are asked to subscribe any amount they choose, payable when the entire $35,000 has been taken up. Subscriptions may be sent to Jno. C. Anderson, President National Bank, Bristol, Tenn. The money will not be due until the entire amount has been subscribed.

There has never been a grander opportunity presented to the profession than this one to come to the rescue of dependent children of our deceased brothers in the profession. The maintenance and education of these little ones appeals earnestly to the generosity of the grandest profession in the world, and what is proposed in this connection will live not alone as a monument to the profession, but will stand as a shield, warding off distress from some of our own children, it may be, and from our posterity.

STATE SOCIETY MEETING.

The Medical Society of the State of North Carolina will meet in the Court House at Durham on Tuesday, May 21st, 1901. Dr. Julian M. Baker, of Tarboro, will preside. This date has been fixed by the Local Committee of Arrangements, and it is early enough to suit the members and late enough to accommodate the candidates for license. The Board of Examiners will likely meet on Wednesday before the Society meeting, so that they can report in time to allow the successful candidates to join the Society.

Dr. A. G. Carr, of Durham, is Chairman of the Local Committee, and this means that every arrangement for the success of the meeting will be made. Those who wish to make exhibits should write to him in regard to space and rates.

Durham is very centrally located with good railroad connections in all directions, so that their will be no trouble in getting there on time.

The hotel accommodation will be ample, but if necessary it can be supplemented so as to give every one a comfortable place to stay. Reduced rates will be in effect on all the railroads in the State, and special terms will be made with the hotels.

We hope every member will mark the date on his calendar and resolve to come at all hazards for their own good and the benefit of the profession at large.

The chairmen of the different sections will provide a most interesting program in which we will find profit as well as pleasure.

A physician owes it to himself and his patients to attend this meeting and brush up against his brothers in the work.

Some very important matters in a business way will come up for consideration, matters in which all are interested.

APPENDICITIS IN THE FEMALE.

Some cases of appendicitis are very hard to diagnose, whether occurring in male or female, but in the female with abscess formation low down the differential diagnosis from disease of the pelvic organs is very difficult.

Especially is this the case when the patient has had previous attacks of pelvic peritonitis, in fact in such cases nearly always the inflammation about the appendix is complicated by a pelvic trouble. The nearness of the acute inflammation lighting up the disease in the abnormal pelvic tissues. In this day of the ubiquitous gonococcus the female pelvis is a favorite place for abscess formation. The gonococcus is frequently seen along the mucous membrane of the genito-urinary tract, but this is simply his play ground where he takes a recreation, his real work shop is in the deep tissues of the female pelvis. Suppurating ovarian cysts and salpingitis on the right side may give us many of the symptoms of appendicitis and a careful examination is necessary to make a distinction.

According to Geo. E. Shoemaker the differential diagnosis can usually be made between appendicitis and salpingitis by the menstrual history being abnormal in the case of salpingitis; by the normal feeling of the tubes when examination is conducted under the influence of ether, bimanual examination demonstrating the normal condition of the tubes; by the lower situation of the inflammatory mass in case it is tubal—this is particularly demonstrable through the rectum; by the characteristic history of appendicitis, the short onset without the causes which would tend to produce salpingitis, the sharp onset of localized pain and muscular rigidity being alike in both conditions. Vomiting is not common in salpingitis as it is in the intestinal lesion, and the pain is referred to the epigastrium in appendicitis but not in salpingitis.

On account of the pain and tenderness these cases should always be examined under an anesthetic and if the patient has been prepared, the anesthetic can be continued and the operation performed provided the diagnosis and condition of the patient call for it.

ANNUAL MEETING OF THE ASSOCIATION OF MEDICAL OFFICERS OF THE ARMY AND NAVY OF THE CONFEDERACY.

According to the Southern Practitioner the annual meeting of this Association will be held in Memphis, Tenn., in connection with the annual reunion of the United Confederate Veterans May 28th, 30th, 1901.

MEMPHIS, TENN., March 1st, 1901.

Dear Doctor.—The Association of Medical Officers of the Army and Navy of the Confederacy will convene in Memphis, Tenn., May 28–30, 1901, during the meeting of the Confederate Reunion. All Surgeons, Assistant Surgeons, Acting Assistant Surgeons, or Contract Physicians and Hospital Stewards, in the Army and Navy of the Confederate States, and all regular physicians who served honorably in any capacity in the Confederate States Army and Navy, and all regular physicians who are sons of Confederate Veterans, are eligible to membership.

You are cordially invited to attend said meeting and contribute reports of important cases coming under your observation, and any reminiscenses worthy of preservation connected with your service in the Army or Navy of the Confederacy.

If you desire to become a member of the Association, and expect to attend the meeting next May, please fill out the enclosed blank and return the same to the Secretary at once, in order that your name may appear on the roll.

Respectfully,

A. L. ELCAN, M.D., Secretary.
Southern Express Building,
Memphis, Tenn.

G. B. MALONE, M. D., Chairman,
281 Main St., Memphis, Tenn.

The enclosed blank alluded to contains space for name in full; time and place of enlistment; rank at time of enlistment; rank at close of war; character of service—Army or Navy; when and where surrendered; present address, and remarks.

Any further information desired will be most cheerfully furnished by Drs. Malone or Elcan, of Memphis, or Dr. Deering J. Roberts, Secretary of the Association, of Nashville, Tenn.

A recent visit to Memphis elicited the fact that nothing will be left undone to provide for the comfort, enjoyment and pleasure of the survivors of the late war between the states. Every man, woman and child in Memphis is fully enthused and thoroughly aroused, with a full determination that the occasion shall be both eventful and momentous to everyone who may be so fortunate to attend.

The doctors of Memphis will see that their end of the line is fully kept up; and with a uniform railroad rate of one cent per mile over all southern and southeastern roads, the attendance should surely be a feature of the occasion.

PAN-AMERICAN MEDICAL CONGRESS.

The Third Pan-American Medical Congress was held in Havana, Cuba, on February 4th. It was attended by something over 100 physicians, greatly more than half being from the United States, and yet the proceedings were mostly in Spanish.

The Congress was divided into 22 sections and this left only a few to each section. Half a dozen to a dozen was the average attendance on the different sections.

It seems strange that while 79 out of 130 were English speaking people, yet Spanish should have been the language of the meeting. We have great need of an universal language for our international medical meeting, and the sooner all doctors learn English the better. All medical schools should have a professor of universal language and graduates should be required to pass it along with the other subjects.

The first general session of the Congress was presided over by the Governor-General, Dr. Wood, and his address of weleome was in English of course.

After the Secretary's report, Dr. Fernandez, the President, made an address of welcome, which was followed by the address of the evening on Obstetrics by Dr. Hernandez.

One of the most important papers of the meeting was the report made by Dr. Reed on the Etiology of Yellow Fever. His experiments with the mosquito were made on men hired for the purpose. They were told of the dangers of the experiment, but for $250 each, they consented to let the mosquito have a bite. As a result of his experiments he offered the following conclusions:

1. The mosquito (Culex fasciatus) serves as an intermediate host for the parasite of yellow fever.

2. Yellow fever is transmitted to the non-immune individual by a mosquito that has previously fed on the blood of those sick with this disease.

3. An interval of about twelve days or more after contamination appears to be

necessary before the mosquito is capable of conveying the infection.

4. The bite of the mosquito at any earlier period after contamination does not appear to confer any immunity against subsequent attacks.

5. Yellow fever can also be experimentally produced by subcutaneous injection of blood taken from the general circulation during the first and second days of this disease.

6. An attack of yellow fever, produced by the bite of the mosquito, confers immunity against a subsequent injection of the blood of an individual suffering from the not-experimental form of this disease.

7. The period of incubation in thirteen cases of yellow fever has averaged from forty-one hours to five days and seventeen hours.

8. Yellow fever is not conveyed by fomites and hence disinfection of articles of clothing, bedding, and merchandise, supposedly contaminated by contact with those sick of this disease, is unnecessary.

9. A house may be said to be infected with yellow fever only when there are present within its walls contaminated mosquitos, capable of conveying the parasite of this disease.

10. The spread of yellow fever can be most effectually controlled by measures directed to the destruction of mosquitos, and the protection of the sick against the bite of these insects.

11. While the mode of propagation of yellow fever has not been definitely determined, the specific cause of this disease remains to be discovered

Appropriate resolutions were passed on the death of Dr. Wm. Pepper who organized the congress and presided over its first two meetings. Buenos Ayres was chosen as the next place of meeting in 1903. The following committee was appointed for the United States; Dr. Chas. A. L. Reed, President; Dr. A. Vander Veer, Vice President; Dr. Ramon Guiteras, Secretary and Dr. H. L. E. Johnson, Treasurer.

THE TEXAS MEDICAL GAZETTE.

The big oil strike down in Texas has evidently made a boom in real estate and the Journal business is keeping up with the procession. The Texas Medical Gazette comes out in a green cover and we suppose the "red back" will need to look to its laurels in a few years. Greenback has a very comforting name but the average medical editor sees very little of it. We hope for our Fort Worth friends a large and speedy success and trust that they may print enough green back of one kind to make a nail keg full of another. The first number contains about 50 pages of good reading well printed and neatly put up.

BOOK REVIEWS

The American Year-Book of Medicine and Surgery for 1901. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books, of the leading American and foreign authors and investigators. Arranged with critical editorial comments, by eminent American specialists. In two volumes—Volume I, including General Medicine, Octavo, 681 pages, illustrated; Volume II, General Surgery, Octavo, 610 pages, illustrated. Philadelphia and London. W. B. Saunders & Co. 1901. Per volume: Cloth, $3.00 net; Half Morocco, $3.75 net.

The issue of the Year-Book for 1900 in two volumes met with such general approval from the profession that the publishers decided to follow the same plan with the Year-Book for 1901. This arrangement has a two-fold advantage. To the physician who uses the entire book, it offers an increased amount of matter in the most convenient form for easy consultation, and without any increase in price; while specialists and others who want either the medical or the surgical section alone, secure the complete consideration of their branch at a nominal sum, without the necessity of purchasing considerable material for which they have no special use.

However, as the surgeon should be a good doctor and the doctor should be a good surgeon it would be the proper thing to get both volumes.

In the first volume we have General Medicine, by Stengel and Edsall; Pediatrics, by Starr and Hand; Pathology and Bacteriology, by Riesman and Kelly; Nervous and Mental Diseases, by Church; Diseases of the Skin and Syphilis, by Duhring and Hartzell; Materia Medica, Experimental Therapeutics and Pharmacology, by Wilcox and Stevens; Physiology, by Stewart; Legal Medicine, by Johnston; Public Hygiene and Preventive Medicine, by Abbott, and Physiological Chemistry, by Jones and Hunt.

In the second volume we have General Surgery, by Keen and DaCosta; Obstetrics, by Hirst and Dorland; Gynecology, by Baldy and Dorland; Orthopedic Surgery,

by Gibney and Waterman; Opthalmology, by Hansell and Reber; Otology, by Burnett; Diseases of the Nose and Larynx, by Ingals and Ohls, and Anatomy, by Hamann.

The mechanical part is gotten up in the highest style of the bookmakers' art.

Obstetric and Gynecologic Nursing. By E. P. Davis, A.M., M.D., Professor of Obstetrics in Jefferson Medical College and Philadelphia Polyclinic; 12mo, volume of 402 pages, fully illustrated. Philadelphia and London. W. B. Saunders & Co, 1901. Price. $1.75 net.

This volume is designed to furnish instruction as to the various duties of the obstetric and gynecologic nurse. Obstetric nursing demands some knowledge of natural pregnancy, and of the signs of accidents and diseases which may occur during pregnancy. It also requires knowledge and experience in the care of the patient during the labor and her complete recovery, with the needs of her child. The obstetric nurse must also know how to help patient and doctor in the accidents and complications of labor, and has an important part to play in caring for mother and child in the disease which occasionally attack them during the puerperal period. Gynecologic nursing requires special instruction and training, and a thorough knowledge and drill in asepsis and antisepsis are absolutely indispensable.

The author has a way of going directly to the heart of any matter and in this book he tells what is necessary for a nurse to know and in a way that appeals to the common sense of the reader. The work will take a permanent place among the text-books for training schools, in fact, it is a most instructive book for physicians to read. It is gotten out in first-class style with a number of good illustrations.

A Practical Treatise on Nervous Exhaustion (Neurasthenia), its Symptoms, Nature. Sequences, Treatment, by George M. Beard, A.M., M.D.; Fellow of the New York, Academy of Medicine. Edited, with notes and additions, by A. D. Rockwell, A.M., M.D.; Professor of Electro-Therapeutics in the New York Post-Graduate Medical School and Hospital; Fourth Edition; Enlarged; Cloth, 274 pages; $2 00 net. E. B. Treat & Co., 241-243 West 23d St., New York; 1900.

As the editor well says, neurasthenia is now almost a household word and afford a convenient refuge to the profession when perplexed at the recital of a multitude of symptoms. But the physician should be sure of his diagnosis and correct in his treatment. A careful study of this work will greatly help to accomplish both. The classical investigations of Beard are well known to all by reputation, and in this book a chance is offered to know them more intimately. The editor has greatly enlarged and corrected the work, bringing it up to date.

The frequency with which this disease is encountered and its obstinacy under treatment have made a book of this kind indispensable to the practitioner.

The A. B. C. Manual of Materia Medica and Therapeutics, by G. Hardy Clark, M.D. Cloth, 197 pages; $1.00 net By mail $1.07. Philadelphia; Boericke & Tafel. 1900.

The author of this little work takes up the commonly used drugs in alphabetical order and in very concise language he gives the characteristics, toxic symptoms, if any, dose and therapeutic uses of each medicine. The book is very handy for reference and gives just what we want to know about the different drugs.

It is well printed in clear type and will prove a great help to physicians of all schools.

LITERARY NOTES.

Everybody's Magazine.

Among the most conspicuous contributions to the March issue in an article on "The Government of a Great City," by Bird S. Coler, Comptroller of the City of New York. No one is so fitted as Mr. Coler to treat of so important a subject, and in the broad and suggestive manner in which he handles it does justice to his reputation and political acumen. The subject of photography enlists the attention of millions throughout the country, and there should be many readers for the article on "Photography as a Fine Art," by Charles H. Caffin, the first of a series on the development and present status of the photograph. "The Outlaw" is a character study of a beaver who was cast out by his companions, by A. Radclyffe Dugmore, illustrated with a series of the author's extraordinary photographs. J. P. Mowbray ("J. P. M.") relates in his inimitable manner how John Dennison and his wife go about "Making a Country Home." The stories are. "In the Dragon's Mouth" by Adele Marie Shaw, a remarkably vivid and dramatic story of the Boxer uprising in China, and "The Riding of Felipe," a strenuous tale of Spanish days in California by Frank Norris. "Vox Populi," one of W. J. Lampton's "Yawps." The continuation of

the stirring story "Joelyn Cheshire" by Sara Beaumont Kennedy, and "How Haring Held the Bridge," one of the "Medal of Honor" stories, by Carl Hovey, complete an exceedingly attractive table of contents.

The March number of The Forum is of extraordinary interest. Sir John G. Bourinot, chief clerk of the Canadian House of Commons, contributes an article on "British Rule in the Dominion of Canada," detailing the political history of Canada under British rule. Hon. Charles Denby, formerly United States Minister to China, writes an article entitled "What of the Democratic Party," in which he discusses the vital questions of the future and their political relation to party action. "The Growing Powers of the President" is an article by Mr- Henry Litchfield West, treating of the increasing responsibilities of our chief executive. In a contribution entitled "Labor Conditions in Switzerland," Mr. Walter B. Scaife presents an interesting summary of prevailing conditions among the workingmen of the progressive republic of Switzerland. Felix Volkhovsky, once a Siberian exile, has an article on "The Hopes and Fears of Russia," which reveals many characteristics of the present Tzar, not heretofore universally known. "The Nations in Competition at the close of the Century," by Jacob Schoenhof, treats of the increasing commercial activity of the United States, and certain European nations, and the probability of Great Britain losing her commercial suppremacy. "The Career of King Edward VII.," by Mr. J. Castell Hopkins, gives a detailed account of the life of England's new sovereign. Other articles are: "The Superintendent from the Primary Teacher's Point of View," by Alice Irwin Thompson; "Tabloid Journalism': Its Causes and Effects," by Mr. A. Maurice Low; "Homicide and the Italians," by Napoleone Colajamni; "The Boer War; A study in Comparative Prediction," by Mr. Herbert W. Horwill, and "The Machiavelli of Chinese Diplomacy," by Robert E. Lewis.

The March "New" Lippincott. A new novel by Maurice Thompson, the first since "Alice of Old Vincennes," appears—complete—in the March "New" Lippincott Magazine. This is a delightful, straightforward love-story in Mr. Thompson's sweetest vein. As in "Alice of Old Vincennes," he selects his native State, Indiana, for a background, though some of the most significant incidents occur in picturesque New Orleans and during a trip on the lovely, languid waters of Bayou Teche. Three vivid characters in the story compel more than a word in passing, while even the side-lights are distinctly original. Frederick Breyton, a young New York millionaire, who yearns for "something different," makes a bicycle trip through the West. When he reaches the little town of Hawford, Indiana, he finds what fate had in store for him. No girl has yet made a lasting impression on the fine young fellow, who is a bit of a poet, and when he meets, Rosalynde Banderet his heart is ready for the germ love. This is unfortunate, because the girl is engaged to Alfred Rayle, an improverished artist' a cripple, whose divine eyes and marvellous magnetism make him a rival not to be lightly considered. The author's skill in dealing with the situation is magnificent. He gives free rein to his imagination, and the result is an idyllic, delightful plot which must be read, it cannot be guessed.

Almost every part of the globe is represented in Scribner's Magazine for March, and in every case by some well-known writer who has actually visited the country which he describes. Four of the contributors are distinguished correspondents who have had many romantic experiences. Their articles in this number have to do with the changing conditions brought about by recent upheavals.

Richard Harding Davis leads the number with an account of a journey "Along the East Coast of Africa," stopping at those strange, half-barbaric and half-civilized ports that mark the fringe of progress in Africa. From Lorenzo Marquez to Tanga Mr. Davis found it one of the most entertaining journeys that he has ever taken, each town representing a new phase in the great international problem of the conquest of Africa. The article is full of delightful character sketches of the restless men who are taking part in the beginnings of Empires and States.

Mrs. Nation's saloon-wrecking crusade is occasion of some pertinent paragraphs in the March Review of Reviews on the subject of American lawlessness, the lynching evil and official responsibility for public order. The editor takes the ground that lawlessness, at the present time in this country, is "a greater danger than drunkenness," and that "the law should be put in enforceable shape and then enforced, in spite of everything."

On the question of Cuba's future relations with the United States the editor of the Review of Reviews holds that much more time is required than the advocates of an

extra session of Congress have allowed for —that, in short, Congressional action will not be demanded for many months to come. In Dr. Shaw's opinion it would be a mistake to try to sent up the new Cuban government before 1902.

ABSTRACTS of the One Hundred Leading Articles of the Month.

Animal Disease and Animal Food.

In the Sanitarian for February, D. E. Salmon says that during the last two years there have been an unusual number of cases of glanders in horses and as it is a disease easily communicated and fatal to man it is worthy of notice. There is not only the danger of accidental infection to those who come in contact with the horses, but the horses for the production of serum if not carefully selected may be the means of spreading disease. Glanders always increases after a war, especially in army horses and from them spreading to others. Rabies, he says, is becoming more common and the most alarming part of it is the fact that there are numerous societies which are deliberate and active in deceiving the people as to the existence of the disease, and he suggests that some steps should be taken to get the truth of the matter before the people. Tuberculosis in cattle is a matter of great interest as it affects the food supply and may be the cause of infection in man. He thinks some of the laws in regard to tuberculous cattle have been too harsh and strict, and that it would be better to secure a healthy public sentiment first.

Anesthetics.

In the Denver Medical Times for February, A. A. Kerr gives some observations from the administration of anesthetics in 1,000 cases.

He says that the anesthetizer should be experienced, especially if chloroform or Schleich's Mixture is used, for as much depends on the qualities of the anesthetizer as on the kind of anesthetic.

Systematic examinations of all important surgical cases should be made before using any anesthetic.

Proper preparation of the patient should never be neglected except in emergency cases.

All anesthetics should be given gradually, especially in the beginning. Ether may occasionally be crowded to prevent vomiting, but chloroform should never be given concentrated.

The condition of the pupil is a valuable guide as to the degree of narcosis.

Abdominal Hysterectomy.

According to the Medical News for February 23d, G. Nann, in La Gynecol. for December 15th, gives the following points for abdominal hysterectomy:

At 45 deg. Trendelenburg position from beginning to end, until the parietal suture begins; a large retractor held at the lower limit of the wound by an assistant standing between the feet of the patient, who shifts it from side to side, always over the point of operation; systematic abandoning of the hemostatic forceps on large vessels, ligating at once instead; ligation of the hypogastric arteries. The foregoing points assist in rapidity and the following in asepsis:

Abandonment of all chemical disinfectants, using only heat for sterilizing; reconstruction of the peritoneal layer on the pelvic floor; all ligatures of catgut; all sutures of the same substance, except at the skin, where silkworm gut is used. As to the comparison between this and the vaginal route, he thinks the abdominal the more truly surgical, because it is rapid, free and complete in its work.

Asthma and Pregnancy.

According to the American Journal of Obstetrics for February, Andebert, in a paper before the International Congress, says that asthma may occur for the first time during pregnancy. In some cases it may occur only during gestation and sometimes in successive pregnancies.

He cites an instance in which he diagnosed a three-months pregnancy it a IVpara who was nursing and not menstruating, being led to this conclusion by a sudden attack of asthma. In such cases he regaads the occurrence of such paroxysms as a true sign of pregnancy. He makes no attempt to account for the etiological relationship of the pregnant state to asthma. If the disease antedates gestation it becomes aggravated. At the time of labor its symptoms are much more severe and dangerous or may be absent. The mother may die (one case in seven); the fetus suffers somewhat. Fetal motions may be slow or not present for a time. In one case absence of fetal heart sounds for a day was noticed, subsequently they were feeble and ceased soon after birth. The dyspnea never causes uterine contraction, but it is itself increased by labor. The writer advises morphine and local revulsion as treatment; quinine, if the case is one of hay fever. Induction of labor is indicated, especially in the inter-

est of the child, if the attacks are severe and repeated. During an interval rapid digital dilatation, followed by rapid extraction by forceps or version, is preferable.

A New Delicate Sugar Reaction.

According to the Medical Record for February 9th E. Riegler describes a new phenyl hydrazin reaction said to be of great delicacy. Twenty drops of urine are placed in a watch glass and a knife point of white pure phenyl hydrazin hydrochlorate, a somewhat larger amount of sodium acetate and 40 drops of water are added.

The mixture is brought to a boil over an alcohol lamp and then shaken with two and a half drachms of ten-per-cent. caustic soda solution. If sugar is present in amounts over 0.1 per cent., a reddish-violet color will appear in a few seconds. It is to be noted that the color is to be observed by transmitted light, that the whole fluid and not a possible precipitate of phosphates alone must be colored, and that the coloration should appear within five minutes, as even normal urine may give it after this length of time has elapsed.

Abscess of the Orbit.

According to the American Journal of Surgery and Gynecology for February, a peculiar case of abscess of the orbit was reported to the Philadelphia College of Physicians by D. D. Risley.

The patient was a boy who had had an abscess of the orbit which had proved to be associated with an opening into the ethmoidal cells (thus furnishing another illustration of the fact that suppurative disease of the orbit is usually associated with disease of one or more of the contiguous sinuses). The patient applied for treatment at the Wills Eye Hospital two days after a blow upon nasal aspect of the upper eyelid by a piece of flying metal. The upper lid was edematous, the conjunctiva was cnemotic, there was marked exophthalmia, and the globe was almost fixed, only slight rotation inward remaining. Under cold compresses the pain promptly ceased, and the edema of the lids and the exophthalmia disappeared, leaving only a point of tenderness at the upper and inner angle of the orbit. On the fifth day fluctuation was present, and a deep incision into the orbit was followed by a profuse discharge of pus. A probe passed without resistance deeply into the orbit, showed a large area of denuded bone. The cavity was injected with peroxide of hydrogen solution and subsequently cleansed twice daily, with saturated solution of boric acid. The solution passed freely into the nostril. Suppuration practically disappeared after the first treatment, and the wound healed without reaction or further suppuration. Mobility of the ball at the end of two weeks was completely restored and no tenderness remained. Dr. Risley found it difficult to explain the presence of the denuded bone, the opening into the ethmoidal cells, and the orbital suppuration following so speedily after the slight injury the boy had received. There was no discoverable evidence in the nose of the ethmoidal disease having existed prior to the accident; but it is quite probable that it existed.

Bacterial Toxins.

Victor C. Vaughan and Thos. B. Cooley in the Journal of the American Medical Association for February 23d, gives an outline of the theory of the nature and action of the bacterial toxins. From their experiments they conclude that the colon bacillus in virulent form contains within the cell a toxin which is fatal to guinea-pigs of from 200 to 300 grams weight, in quantities of less than 1 mg. The aqueous extract of the cells of the colon bacillus grown on agar is inert. The entire germ is highly resistant to heat and to dilute acids and alkales. The cell wall of the colon bacillus is digested by the prolonged action of artificial gastric juice, which does not alter the toxin. The toxin as thus obtained is insoluble, or but slightly soluble, in dilute acid, but is slightly soluble in water and more readily in dilute alkales. This toxin responds to the ordinary proteid reactions. The toxin, after being freed from the cell membrane, is not destroyed by being boiled. We will endeavor by further research to determine more definitely the nature of this toxin and will extend our investigations to other bacteria.

Convulsions with Scarlet Fever.

In the Medical Record for February 23d, Herman E. Hayd reports a very severe case of convulsions with scarlet fever which made a perfect recovery.

From a careful study of the subject he concludes that every case of scarlet fever is a law unto itself.

Convulsions may occur and do occur when least expected and every case of scarlet fever should be closely watched for many weeks.

The urine should be frequently examined, not only its specific gravity taken and albu-

min tested for, but urea calculation should be often made.

Mere specific gravity is not a sufficient indication as to the amount of urea eliminated, because the specific gravity may be fairly high. and yet urea can be retained in poisonous quantities; moreover, a large quantity of water can be voided and with a fair specific gravity, and yet convulsions may occur.

Albumin need not be present, or only a trace may be found in the urine, yet convulsions may occur, but the albumin will be found perhaps in great amounts after the convulsions have occurred.

Only the most digestible food and nourishment should be given, and if possible such foods as produce little gastric and intestinal putrefaction; the food par excellence being milk, because the amount of toxalbumins and putrefactive residue is reduced to a minimum.

If milk cannot be digested or will not be taken, no food should be administered for days by the stomach, simply an abundance of water and the patient nourished by nutrient enemata. If broths are borne, chicken broth, made after the directions of Dr. Pryor of New York, as found in his book, is a pleasant and nutritious food.

In any severe case of convulsions, only small amounts of nourishment, if given by the stomach, should be attempted at any one time, and frequent urea calculation should be made to see that the proper quota or equivalent of urea is eliminated, and if the urea is not increased after the ingestion of the food, then the food must be withheld or such food be substituted as will not interfere with the proper excretion of urea.

If gastric irritability exist, give the stomach and bowels rest, because by giving them rest, a period of quiet also results for the kidneys, and that interval of time may be sufficient to permit the kidneys to rehabilitate themselves, either in function or to develop new renal secreting cells, as scarlatinal nephritis is a desquamative process, and new epithelial cells are no doubt often quickly formed.

The amount of urea passed in twenty-four hours differs in different individuals, and it may roughly be stated that an excretion of 10 gm. or gr. 150 of urea for a child ten years old, weighing sixty pounds, will protect her from convulsions. His patient is to-day passing over five hundred grains of urea every twenty-four hours.

Hypodermoclysis is a very valuable and safe method to introduce water into the system, and as much as two or three pints can be used, and with proper precautions no danger will result or severe abscess formation follow. The decinormal salt solution should be used, and should be first boiled, and the skin is to be thoroughly disinfected by washing it freely with soap and brush, and then washing again with bichloride solution 1 :2,000, and subsequently with alcohol. The needle and fountain syringe with tube should be placed in boiling water and boiled for a few minutes to insure their perfect cleanliness.

Enteroclysis, or the introduction into the bowels of a number of quarts or even gallons of water, of a temperature ranging from tepid water to water of a temperature of 80 deg., if much fever be present should be employed once or twice during the twenty-four hours.

Strychnine and digitalin are our most valuable heart stimulants, and brandy is our best food and diffusible stimulant.

Congenital Dislocation of the Shoulder.

Daniel W. Marston in the Virginia Medical Semi-Monthly for February 8th, reports several cases of congenital dislocation of the shoulder with method of treatment. He says that it is the utmost importance to differentiate between cases of dislocation and true obstetrical paralysis.

The treatment of the former condition is immediate reduction; manipulation if possible; otherwise operative.

Every infant should be carefully examined at birth, for it is at this time that reduction is easiest performed.

From the fact that a fracture of the glenoid cavity was found in three of Dr. Phelps' cases, and that the history of nearly all cases shows difficult labor, I am led to believe these cases are not of paralytic origin, but are due to traction, made in the axilla by the finger or vectis. Paralysis may be coincident, but it cannot be a primary factor in causing dislocation posteriorly.

The prognosis of the operative treatment is excellent. The earlier the operation the more hopeful the outlook.

Like congenital dislocation of the hip, these cases of the shoulder are little benefitted by mechanical treatment.

Carcinoma of the Lower Lip.

John Chalmers DaCosta, in the Therapeutic Gazette for February, discusses the treatment of carcinoma of the lower lip. Of course the only proper treatment is radical extirpation and he prefers the operation of W. W. Grant. In this operation the growth is removed in a square of tissue going into healthy parts on each side and

below the tumor. From the two lower corners of this square diverging incisions are made over the lower edge of the jaw and as far down the neck as necessary to reach the related glands.

He advises operation in every case of sore which does not heal, particularly if it has a hard edge, the earlier the better.

The radical operation is the only thing, and always remove the anatomically related lymph and submaxillary glands.

If the tumor is removed before there is obvious glandular enlargement the prognosis is excellent; when there is slight glandular involvement, it is fair; but when there is extensive glandular involvement, it is well-nigh hopeless.

Continuous Catheterization.

H. M. Christian, in the Therapeutic Gazette for February, believes in the value of continuous catheterization in certain genito-urinary affections. He reports five cases of enlarged prostate with retention and one of urethral fistula with stricture in which he used continuous catheterization with marked benefit. He calls attention to an important point in technique, that no part of the catheter be allowed to remain in the bladder itself.

The instrument should be very slowly introduced and should be retained permanently at that point at which the first urine begins to flow, the object of this maneuver being to keep the eye of the catheter in the prostatic urethra. Any portion of the instrument remaining for any length of time in the bladder is bound to provoke congestion of the trigonum, hematuria, and vesical tenesmus, conditions which will not only add considerably to the patient's suffering, but will materially add to the danger of bladder infection.

Early Diagnosis of Tuberculosis.

H. Mansfield Holmes, in the Journal of the American Medical Association for February 23d, in speaking of the importance of an early diagnosis of tuberculosis, says that the fact should be more generally recognized that if the vital forces become impaired from any cause whatever, the resistance to the tubercular infection is diminished and the danger of infection increased. Prolonged overwork, dissipation or exposure weaken an organism. The tissues of such persons constitute a fertile soil for the infecting germs. When the germs are brought in contact with the weakened tissues they find favorable conditions for propagation. This marks the actual beginning of tuberculosis.

It should be remembered that an early diagnosis is of supreme importance. If we hope to secure good results we must resort to means of examination which will enable us to detect the disease before it has become firmly established.

There are early symptoms which make their appearance long before the stage of expectoration.

Expectoration is frequently present for a considerable time before bacilli can be found.

The diagnostician who delays for the appearance of bacilli in the sputum fails to diagnose the disease in its incipiency and loses the most valuable period for treatment.

When the early symptoms are present and no other cause can be found to account for them, we are justified in suspecting tuberculosis.

Before arriving at a definite diagnosis we should consider well the previous history, the general appearance of the patient, and the symptoms. After carefully weighing all that can be secured from such a study we should resort to early and repeated physical examinations of the chest; a bacteriological examination of the sputum, if the disease has advanced to this stage; a microscopical examination of the blood; and if doubt remains we should finally resort to the tuberculin test.

After the disease is discovered the fact can not be too strongly emphasized that patients can not remain surrounded by insanitary conditions and regain their health.

With the exercise of greater care on the part of both physicians and patients in recognizing the early symptoms of tuberculosis, and a more rational use of means to prevent infection, we may expect fewer cases of tuberculosis and a greater percentage of cures.

Early Diagnosis of Insanity.

According to the Boston Medical and Surgical Journal for February 21st, C. F. MacDonald read a paper on the early diagnosis of insanity before the Medical Society of the State of N. Y.

He points out the special importance of the subject to the family physician.

He said there was no disease which was so likely to be mismanaged in its initial stage as insanity. The symptoms might be summarized as a prolonged departure from the method of thinking, feeling and acting which were usual to the individual when in mental health. The person must be com-

pared with his own normal mental status. Prominent prodromata of mental disease were morbid emotional manifestations and alterations in the mental characteristics of the individual, and they should always be looked upon as danger signals. Insanity was rarely due to a single predisposing or exciting cause. Many cases of acute insanity could be averted if the prodromata were promptly recognized and treated. Doubtless many minds of the highest order had been irreparably damaged for want of appropriate treatment in the initial stage.

Empyema.

Edward Martin in the New York Medical Journal for February 16th says that the prophylactic treatment of empyema consists in emptying at once every considerable pleural effusion of inflammatory origin.

In this little operation the skin should always be cut with a scalpel at the point where the exploratory needle is inserted. Serous effusions are best removed by means of aspiration; if they reaccumulate after three aspirations, they should be subjected to continuous siphon-drainage. Fresh empyemata are best treated by continuous siphon-drainage, a tube the thickness of the little finger being introduced through the canula. If this is not sufficient, a resection of a rib must be undertaken. Delorme's operation, the removal of the pseudo-membranes from the pulmonary surface, may be necessary if the lung does not expand; and if this is impossible of performance, Estlander's operation, of Schede's operation (removal of the chest wall with the thickened pleura), must be done.

Foreign Bodies in the Brain.

In the Texas Medical Gazette for February Frank R. Ross reports an interesting case of foreign body in the brain. The patient was crazy and had made several attempts on his life. In the last desperate effort to end his existence he tried to force a shoemaker's awl into his head but it was stopped by the bone. He then held the awl in his hand and ran against a brick wall driving it into his brain up to the handle which broke off and fell to the floor. The instrument went straight into the right frontal lobe. He was unconscious for a few hours and consciousness returned. About a week later he began to have fever which kept him in bed for six weeks. After this time he greatly improved and was able to go about his business.

His mental trouble returned and he insisted on having the awl taken out.

An operation was done, and the broken end of ths awl was exposed by an incision and seized with a strong pair of forceps and removed. Attached to it and surrounding it was a fibrous sheath to which was attached a small portion of brain tissue.

He made a good recovery and has had no mental trouble since.

Failure of Compensation in Diseases of the Heart.

In the Medical Record for February 16th, Morris Manges has an article on the causes of failure of compensation in diseases of the heart. He groups them under five heads; First, failure of general nutrition of the heart. Second, disturbance of local nutrition of the heart. Third, increased work of the heart. Fourth, functional cardiac disorders. Fifth, effect of improper treatment.

Methods of Teaching Gynecology.

In the Indian Medical Record for Jan., 30th, Howard A. Kelly says that gynecology may be taught in the following way:

First, history taking and ward work, attending to dressings and removing sutures and studying the sequels of operations, the convalescence. Second, a touch cause once a week in which gynecological diagnosis is taught with the patient preferably under anesthesia. Third, an hour a week is spent in the pathological laboratory studying scrapings and cultures and examining gross specimens. Fourth, watching operations, the class divided into small sections. Fifth, lectures.

The day for performing operations before a large class, he thinks, has passed. The student sees practically nothing and their presence is a menace to the life of the patient.

He then describes the course of study at Johns Hopkins.

Prognosis in Acute Nephritis.

F. A. Payne, in the Cleveland Medical Gazette for February, says that the tendency in acute Bright's disease is towards recovery. Complete recovery is the rule in those acute cases accompanying diphtheria, typhoid and other infectious fevers. In scarlatinal nephritis the prognosis is not so good, the mortality being 33 per cent. In albuminuric retinitis the prognosis is grave except in cases occurring in pregnancy.

Fatal Case of Puerperal Fever which Led to a Malpractice Suit.

C. S. Bacon, in the American Journal of Obstetrics for February, reports a case of death from puerperal fever in which the physician was sued for malpractice. The attending physician, on his first visit, found that labor was not far advanced and left to see some other cases; in his absence a midwife was called on account of severe pains and she made an internal examination. On his return he found everything all right and the child and placenta was delivered without trouble. On the tenth day fever developed and the patient died a few days later.

Three charges were made in the suit: First that the physician was guilty of culpable ignorance and neglect, in that, while he was engaged to attend this case of labor and was expecting to be called at any moment, he attended a case of puerperal septicemia. Second, that he was guilty of the same ignorance and neglect in that he failed to properly cleans himself and the cloths that were used about the patient. Third, that he was guilty of ignorance and neglect in that he did not treat the patient properly after the fever developed—namely, he did not curette the uterus.

The case was on the calendar but did not come into court as it was dismissed by the prosecution. It shows, however, some of the dangers of being at all careless in the management of obstetrical cases. The attendant in this case was absolutely guiltless as the patient was doubtless infected by the midwife, still it would not be a very pleasant job to defend such a case in the courts.

Gonorrhea Treated with Electricity.

W. H. Walling in the International Medical Magazine for February says that the following diseases of the genito-urinary tract may be treated by electricity; Inpotence, catarrhal condition of Cowper's glands, spermatorrhea, enlarged prostate, varicocele, hydrocele, stricture gonorrhea and syphilis. In speaking of gonorrhea he says that, unfortunately, this disease is regarded by the laity as being of little consequence. It is in reality a very serious disorder, many eminent authorities classing it as being more disastrous than is syphilis. Treatment should be instituted as soon as the disease first manifests itself.

Taken in this early stage it can be at once checked. A suitable sized copper bougie, insulated to within half an inch of the distal end (a Neumann's sound will answer), and having the patient urinate, apply the cathode to the thigh and the anode to the bougie, pass the latter until it fully engages the prostatic urethra, turn on five to eight milliamperes of current and slowly withdraw the instrument, releasing it at the meatus by a sudden movement. A green discoloration, the oxid of copper, will appear at the meatus, and its character should be explained to the patient. This chemical, liberated by the action of the current upon the metal in connection with the salts present, acts as a powerful antiseptic and germicide, penetrating deeply into the surrounding tissues, thus reaching and destroying the gonococci. Treatment may be given every day for three or four days, or every other day, as may be deemed advisable. Some soothing injection may then be given, together with internal medication, if necessary, and the case practically dismissed.

Gleet may be treated in the same manner, as may any irritable or hyperesthetic condition of the urethra; the latter, however, receiving milder currents.

Hemorrhoids.

In the Richmond Journal of Practice for January, John G. Rennie gives a plan of treatment in painful hemorrhoids.

His method of treatment includes rest in bed with elevation of hips, light diet, contents of bowels soluble, and cleanliness. To avoid constipation he uses cascara, 20 to 30 minims of the fluid extract once or twice daily.

He uses the following prescription locally:

℞. Acid carbol.
Menthol, a.a. gr. xii
Cocaine hydrochlorate gr. xiv
Acid Tannic, gr. xvi
Vaselin alb., q.s. ℥i
M. Sig. For local use.

Hair Cast of the Stomach.

In the Medical News for February 16th, Nathan Jacobson reports an interesting case in a young girl 11 years of age.

She suffered from colicky pains, particularly at night, their location being to the left of the umbilicus. Food disturbed her so she had to live mostly upon milk. There was a hard, slightly nodular tumor, quite movable, the lower border being on a line with the umbilicus. On operation the tumor was found to be within the stomach which was opened and a complete hair cast of the organ removed.

The child made a good recovery with freedom from pain and rapid restoration of strength. On questioning it was found that she was in the habit of biting off the

ends of her hair and the habit had been continued with the above result. The mass was six inches in its long diameter, its convex border 11¾ inches, breadth 2½ inches, and thickness 2¼ inches, and weighed 15 ounces.

Otitis Media.

A. W. Calhoun, in the Journal of the American Medical Association for February 23d, gives some observations in mastoid operations.

After a study of a large number of cases of mastoid disease he calls attention to the following points:

Infrequency of mastoid disease as compared with the large number of cases of suppurative otitis media.

Mild type of the disease, freedom from cerebral and other dangerous complications.

Comparative exemption of the negro race.

Presence of serious mastoid disease without marked symptoms, fever, etc.

Presence of mastoid disease without apparent middle-ear involvement.

Not every case requires radical operation.

Puerperal Eclampsia.

In Obstetrics for February, W. Stroganoff reports 58 cases of puerperal eclampsia without a death. He outlines a plan of treatment to meet the following indications:

The prevention of convulsions by lessening the irritability of the nervous system and by removing all external sources of irritation, especially those connected with the birth canal.

The strengthening of the vital processes by careful supervision of the cardiac and pulmonary circulations; by strengthening the general circulation; by securing as large a quantity of oxygen as possible; and by prompt delivery if with these measures, and with a proper diet the convulsions do not cease.

He uses inhalation of oxygen instead of chloroform during the seizure, as he thinks the latter injurious.

Morphine and chloral are the remedies used, from one-half to one grain of the former and 60 to 120 grains of the latter during 24 hours. The second cardinal remedy is the delivery of the fetus.

His important points are:

After the first attack narcotics are to be used prophylactically for a varying period.

The combined use of morphine and chloral seems to have the best effect.

It is desirable to discontinue the narcosis in from twenty-four to forty-eight hours, according to the intensity of the attack.

The most careful attention should be paid to securing the following result, viz., that the lungs and heart perform their functions regularly and actively; for the latter purpose it is especially important that liquids be given per rectum, or, if the patient be unconscious, by the mouth.

All sources of irritation should be removed.

Delivery should be accomplished as rapidly as is possible without danger.

Recurrent Insanity.

From a study of recurrent insanity, Hugh Kerr, in the Glasgow Medical Journal, as reported by the Indian Medical Record for January 23d, concludes:

That recurrent cases form a large proportion of the curable cases admitted into asylums.

That in these cases hereditary predisposition to insanity is present in a greater number than in primary cases.

That alcoholic or other excess is a frequent factor in the causation of relapses.

That in cases in early life menstrual irregularities in the female and masturbation in the male are frequently present.

That the puerperal period and the periods of gestation and lactation account for a large proportion of female recurrent attacks.

That the climacteric period in both sexes is a potent predisposing or exciting cause.

That the majority of the attacks occur in middle life; the first attack, however, is most frequent in the adolescent period, and is later in males than females.

That the prevailing forms of insanity are maniacal melancholic forms, being almost restricted to the middle period of life.

That the tendency is toward recovery, minor relapse being frequent before complete convalescence.

That the largest proportion of chronic cases is found in second attacks.

That in many of the cases a certain periodicity is established, the tendency, however, being toward chronic insanity.

That this class of patients furnishes many who are dangerous to themselves and others—a danger which is increased by the impulsive character of their acts and the frequent absence of marked promonitory symptoms before the onset of the attack.

Renal Casts.

In the Texas Medical Gazette for January, I. C. Chase writes of the significance of renal casts. He holds that a hyaline cast

has about the same significance as a transient albuminuria. A finely granular cast has about the same significance.

He concludes further that coarse granular, fatty and epithelial casts indicate active inflammation and glandular epithelium proportional to their number and the quality and quantity of the contained cellular detritus.

That blood casts are the only pathognomonic symptom of renal hemorrhage.

That pus casts are the only absolute sign of suppurative nephritis.

That amyloid casts are not necessarily indicative of amyloid degeneration of the kidney.

That casts may be entirely absent in the most severe cases of interstitial nephritis.

That mucous cylindroids have no pathological significance.

That casts in the urine may only be evidences of very remote past pathological conditions.

Cerebrospinal Meningitis.

E. Harold Brown in the Indian Medical Gazette for January reports an epidemic of cerebrospinal meningitis in Calcutta. From a study of 41 cases he concludes that the period of incubation of cerebrospinal meningitis varies considerably within certain limits.

That it has not been observed to be less than six days.

That it has not exceeded 37 days. Broadly, then, it may be stated that the period of incubation of this disease is from one to five weeks.

That many more cases occur in the second and third weeks than in the first, fourth and fifth.

To sum up the treatment, it may be said that *fulminant* cases will die whatever treatment be adopted, while the "atypical" ones will recover with mere rest in bed. In the acute and subacute ones, general measures must be adopted, and symptoms should be treated on common sense principles, but it must be remembered that the sooner a case is removed from the place of infection, the better will be the chance of recovery.

Contusions of the Eye Producing Obliterating Hyphema.

M. F. Weymann, in the Medical Herald for January, reports four cases of contusions of the eye, and offers some conclusions on the subject.

He says that contusions of the eyeball resulting in obliterating hyphema may, or may not, be complicated with deeper mischief, but uncomplicated cases are in the minority.

They are apt to be followed by glaucoma, the chief cause of the excruciating and continued suffering.

In the absence of septic contamination acute iritis seldom develops.

When the contunding force at the same time secures non-infected drainage from the anterior chamber, the immediate reaction, though perhaps very severe, subsides within 6 to 12 hours, glaucomatous tension not being able to appear.

The stippling (dissociation) of the anterior epithelium and the parenchymatous haze are due chiefly to the profound shock to the local lymph-system, for the clouding does not disappear with the reduction of the intra-ocular pressure. It often lasts a week or longer.

Drawing off the effused blood is neither practicable nor desirable, for the latter clots a few moments after leaving the vessels. During this process the fibrin binds the coagulum closely to the iris, which tends to narrow the pupil (fibrin contraction). On the other hand it shuts off the light and serves as a quasi iris splint, thus helping to ward off iris-teasing. But with all this a practically painless subacute iritis occurs tending to cause synechiae.

Atropia should always be instilled, not only with a hope of dilatation, but also on account of its most valuable analgesic effect upon the iris.

Glaucomatous tension should be at once relieved by passing a cataract knife into the anterior chamber parallel to the plane of the iris. This makes a valvular wound which can be made to drain at will by depression of posterior wound-lip.

For the purpose of antiphlogosis he uses

(a) ℞. Hydrargyri Chloridi Mitis.
Sacchari Albi aa gr. vj.
M. S.—Take at once.

This has an excellent revulsive effect.

(b) Hot compresses, as hot as can be borne, for 30 minutes out of every hour. Their wonderful soothing effect is usually not needed after 24 to 48 hours, or at least not at such close intervals.

No prognostic promises should be made except to attend to the apparent and evident results of the injury (suffering, blood effusion, inflammation and possible wounds). Predictions should not be attempted until the clot absorption is absolutely complete, for the phantastic and misleading appearances of a disintegrating coagulum are apt to make one feel very sorry over unnecessary failures at prophecy.

The commonest deeper complications are: Sub- or full luxation of lens, cataract (consecutive), iridodialysis, synechiae, fundus hemorrhage, and detachment of the retina.

Diphtheritic Paralysis.

According to the Medical Age for February 10th, Ebstein reports in detail the case of a child ten years of age who was admitted into the Medical Clinic at Gottingen on account of paralysis of the palate and tongue and paresis of the vocal cords five weeks after undergoing a severe attack of diphtheria which had been treated without antitoxin injections.

Almost seven weeks after the onset of the disease the child, who that morning had complained of general lassitude, was suddenly taken with the most violent dyspnea, which soon turned into complete apnea. Artificial respiration was resorted to for five hours, by which time the symptoms improved. Other similar spells occurred at various intervals during a whole week, and required persistent use of artificial respiration extending over periods of ten and a half, thirty-four, eight, and nine hours respectively. The first impulse, of cousre, had been to acribe this apneic condition to the presence of accumulated mucus, but such was not the case; nor could a limited focus of pneumonia at the right base, nor the concomitant mild bronchitis, account for the respiratory trouble. Ebstein holds that a pathological toxin influencing the respiratory centers was the probable cause of the trouble, but is uncertain whether it originated from the long-past diphtheric infection or the present pneumonic affection. At any rate the little patient's life was saved by the faithful and persistent use of Sylvester's method.

Death from the Roentgen Ray.

According to Medicine for February a case is reported in the Lancet for December of a woman 68 years old who met with an accident to her left hip. It was thought at the time that no fracture existed, but later the medical attendant was in great doubt as to whether there was a fracture or not.

With the help of a local photographer two exposures were made, one of thirty-five minutes and the other of forty-five minutes each hip being taken separately. A third exposure was made fourteen days later of forty-five minutes, in which the tube was placed in the middle line so as to give an outline of both hips. On the first occasion the part of the body exposed was covered with clothing, but on the second it was not. Seven days after the second exposure an eruption developed in the left lower abdominal region, which later ulcerated. On July 7 she was found to be suffering from a sloughing wound about three by three and one-half inches. Death, in the opinion of the attending physician, was due to two injuries—the fracture of the thigh and the action of the Roentgen rays. Death took place about seven months after the last exposure to the rays. At the necropsy the wound had lost its slough, but there was little sign of repair.

First Aid to the Injured.

Donald McCrae, in the Railway Surgeon for February 5th, offers the following conclusions in regard to first aid to the injured on railroads:

That the corporation contract for and purchase of the manufacturer a large number of the so-called "first-aid packages," similar to those under discussion.

That said corporation distribute these packages to proper disbursing officers to be placed at stated intervals along its line of road.

That said corporation require each and every conductor, brakeman, switchman, engineer, fireman and all other employes occupying dangerous positions, to carry upon his person one first-aid package in good repair.

That said corporation furnish these packages to these employes at cost price.

That said corporation furnish with each "package" a printed set of rules and directions governing the health of the individual and giving minute instructions as to the care of the injured, etc.

That said corporation require the head or boss of each crew or gang to make regular inspections as to the proper following out of these rules and the condition of the first-aid packages.

That each passenger coach possess one small chest, to contain sufficient cotton, gauze and other necessary first-aid material to care for at least ten persons.

Pathology of Puerperal Sepsis.

Alfred Bass, in the Medical Record for February 16th, in discussing the pathology of puerperal sepsis, says that the uterine cavity of healthy, unexamined pregnant women, and in most cases those of healthy post-partum women, is free from pathogenic germs.

The question as to whether the vagina of healthy, unexamined, and non-irrigated

pregnant women and post-partum cases is free from pathogenic bacteria, cannot at present be definitely answered, even though a series of observations point in this direction. Auto-infection in any given case must be diagnosed only when every possibility of external infection has been excluded; then auto-infection, Ahlfeld's view notwithstanding, will be found as a very rare occurrence.

The following bacteria have been found as causes of puerperal sepsis: Streptococcus pyogenes, staphylococcus pyogenes aureus and albus, bacterium coli commune, pneumonococcus, typhoid and diphtheria bacilli, bacillus ærogenes capsulatus, and vibrion septique. The portal of infection is most frequently the endometrium, especially the placental site, both of which are reached by the direct introduction as well as the rapid growth of the bacteria. The way of infection is lymphatic or circulatory, seldom both at the same time. A positive clinical differentiation of the various bacterial forms cannot be determined, though the anærobic infection runs a milder and more favorable course. The blood examination, with the exception of bacteriæmia, shows nothing characteristic for puerperal sepsis.

Role of Infections in Women.

Chas. A. L. Reed read a paper on this subject before the Medical Society of the State of New York. As reported by the Boston Medical and Surgical Journal for February 21st, he insisted that the essential antecedent condition of an inflammation of any part of the genital tract was an infection. The infection was controlled by the following laws: The epithelial surface of the genital tract when intact is a sufficient barrier to the entrance of microorganism; the normal cervix and its secretions are an efficient barrier against the invasion of the uterus by pathogenic bacteria capable of maintaining a habitat in the vagina; the vagina possesses a certain degree of self-disinfection; certain pathogenic bacteria, such as the gonococcus and the Klebs–Loffler bacillus, find here favorable conditions for their growth; pathogenic bacteria, innocuously present in the genital tract, may become virulent when introduced into the underlying structures by an abrasion of the ephithelium; pathogenic bacteria when introduced into previously normal tissue immediately set up inflammation; pathogenic bacteria, if not overcome by the leucocytes, may enter the lymphatics, giving rise to metastases and septicemia.

Pregnancy and Enteroptosis.

Hector Maillart, in Centralbl. f. Gyn., as reported in the Postgraduate for February, says that after several years' observation he concludes that contrary to generally accepted views, the supervention of pregnancy in enteroptopic women serves a beneficial purpose.

After a rather lengthy exposition of his reasons for arriving at this result he lays down the following conclusions:

Pregnancy in such cases increases intra-abdominal pressure and restores organs to their normal position after the uterus has reached a certain size.

Under these circumstances pregnancy results in an improvement of digestive functions and of the general neurasthenic state, which is shown by an increase of 2 1-2 to 6 kg. in weight between the onset of pregnancy and the termination of the puerperium.

Because of the treatment instituted (proper abdominal support, rational maternal mode of living during the nursing period, etc.) the cure continues, so that several more kilogrammes in weight are gained during the months following pregnancy.

Even in cases obstructed by albuminuria and neglect of treament the rational management of pregnancy will only result in good, even in those cases associated with constitutional neurasthenia.

Resection of the Posterior Nerve Roots for Sciatica.

The Medical Age for February 10th says that Giordano records the case of a patient with persistent sciatica which was cured by resection of the posterior nerve roots.

After many drugs had been tried, the neuralgia was temporarily cured by exposing and stretching the sciatic nerve. A few months later the patient returned, suffering as much as ever, and after medical means had been tried the spinal cord was exposed through the posterior arches of the eleventh and twelfth dorsal and first lumbar vertebræ. The posterior nerve roots were resected in the whole of the exposed area. Pain ceased immediately, but on the second day some neuralgia occurred in the course of the internal saphenous, etc., probably owing to incomplete section of the roots. As this persisted for a few days, the saphenous nerve was divided near the tibia, From that time (April 20, 1900) to the present the patient has had no pain, but complains of the "dead" feeling and want of sensation in the leg.

Renal Tuberculosis.

From a study of 307 cases of renal tuberculosis submitted to some form of operative treatment, Ramsay, in International Medical Magazine for February, considers the operation of nephectomy or nephro-ureterectomy to be the most desirable operation for primary renal tuberculosis.

Nephrotomy is reserved as a palliative measure to be used when the patient seems unable to endure the more radical operation. Nephrotomy is rarely, if ever, curative, but may tide the patient over until sufficient strength is gained to enable a more radical operation to be performed. Nephrectomy or nephro-ureterectomy, including at times a partial resection of the bladder, should be followed by lasting cure in 55.5 of the cases. It is contraindicated in cases of disease of the other kidney or of tubercular foci in other organs. Tuberculosis of the bladder is not a contraindication, however, as it will probably heal later, and a small tubercular focus in the lungs is not always a contraindication. To avoid a persistent fistula, it is desirable to remove the diseased ureter, together with the kidney. To avoid hemorrhage, the ligature should always be employed instead of the clamp to control the renal vessels and it should be remembered that accessory renal arteries occasionally enter near the poles of the kidney. The danger of incomplete removal of diseased tissue contraindicates attempts to resect tuberculosis foci in the kidney. Tuberculosis of the kidney may be classed as a semi-malignant inflammation—and always requires surgical intervention for its effectual treatment.

Sanitarium Treatmeut of Inebriety.

In the Medical Standard for February, T. D. Crothers says that the first thing in the treatment of inebriety after the patient is admitted is elimination. This is accomplished by prolonged hot air or hot water baths, calomel or saline purges. Strong infusions of quassia with small doses of apomorphia should be given with any spirits taken. For the insomnia and nervousness he uses the milder narcotics of which caunabis indica is one of the most valuable. Chloral or opiates should be very sparingly used. Strychnine is well borne is useful for a time to be followed by arsenic. He says that the central object in the treatment is not simply to break up the craze for alcohol, but to remove the cause of which this craze is only a symptom. Remedies that break up the drink craze are not curative any more than locks and bars.

He groups the sanitarium treatment as follows:

First, the inebriate is considered poisoned, starved, and suffering from some central brain and nerve disease.

Second, an exhaustive study is made to determine the probable exciting and predisposing causes in each particular case.

Third, the removal of alcohol and the elimination of the poison product is the next consideration. This is done according to the conditions of the patient.

Fourth, baths, massage, exercise, brain and nerve rest in the most favorable conditions for restoration are employed.

Fifth, mental and psychical treatment, which has for its purpose to divert the mind and break up the illusions and hallucinations which have grown up in the past.

Sixth, the removal and prevention of the exciting causes which have been active as drink paroxysms, and their study and treatment with a view of prevention or diminution of their power to a minimum.

Seventh, the treatment of organic diseases which have been causes of results of the action of alcohol on the orgamism.

Rheumatoid Arthritis.

According to W. H. Neilson, in the Milwaukee Medical Journal for January, rheumatoid arthritis is an inflammatory disease attended by marked nervous manifestations. Its diagnosis is often difficult, but especial stress must be placed upon the nervous phenomena present or antecedent. The prognosis is bad as to cure, but hopeful as to relief. Its etiology is obscure, but the evidence obtained from bacteriological investigation, clinical study, and the therapeutics, points to an infectious orgin. Its treatment is that of improving the nutrition, combating infection and allaying the prominent symptoms.

Specific Gravity of the Body.

Heinrich Stern in the Medical Record for February 9th gives the result of some investigations upon corporeal specific gravity and upon the value of this factor in physical diagnosis.

He says that the information furnished by the body density of an individual will assist to disclose the following point:

First: Body soundness. A volume weight in the healthy adult male below 1.063 or above 1.073 denotes unsoundness of the organism. The lesser density is indicative of a general texture satiation with water or of the preponderance of adiposis,

or of both conditions together. The higher degree of density reveals a disturbed metabolism, a general atrophic or sclerotic state, or premature senility.

Second: Body immunity. A volume weight below the minimum degree of normality signifies that the system is predisposed to infectious diseases, and one above the maximum of normality announces its susceptibility to or the presence of eliminative disorders.

Third: Qualifications as to physical work. A body whose tissues are satiated with water or infiltrated with normal quantities of fatty material cannot during a certain period perform that amount of work which can be accomplished by another organism of the same age and absolute body weight but of normal specific gravity; the individual with abnormal high volume weight also lacks the strength and endurance of one with a lesser but normal density.

Fourth: Probable duration of life. All given conditions being alike, a person of normal volume weight will attain a greater age than one with an excessively low or high density. Individuals, therefore, whose specific gravity is abnormal, should be considered bad risks by life assurance examiners.

Special pathological processes, in as far as they are the originators of abnormal body densities, may often be recognized by the conditions of the latter.

In phthisis pulmonum the blood density may not stand in exactly the same relation to the body density as in the healthy organism, that is, the discrepancy between the degrees of the specifice gravities of both may be either above or below that in the normal body: however, it seems to be beyond question that there always exists a direct relation between the density of blood and that of the body. The blood density frequently, but not in all instances, varies during the different stages of the tuberculous affection.

The blood of a great number of phthisical patients which came under observation at various stages of the disease showed an average density of 1.055. The highest blood density observed in a phthisical male individual was 1.058, the lowest 1.0505. The lessened specific gravity of the blood in phthisis pulmonum may well serve as an indication of a diminished corporeal volume weight.

Sustaining Treatment of Typhoid Fever.

In the Medical News for February 23d, A. H. Buckmaster writes of the sustaining treatment of typhoid fever with special reference to the use of hypnotics. An excellent working plan is as follows:

Supply the body with material for giving heat, nourishment and energy; put the body in such position that it will use these materials to the best advantage; see that the waste materials are thrown off from the body. The whole of the sustaining treatment may be summed up broadly as follows: Look out for the input, the output, and save the waste.

The input includes food, water, air and sunlight. If the patient does not sleep, he must be made to sleep by the use of hypnotics.

In conclusion he says that no practitioner has done his duty who does not know at the end of each twenty-four hours that the patient has had enough food, water and fresh air.

No practitioner has done his duty who has allowed the patient to wear himself out by continued high temperature or by lack of sleep. The amount of sleep in the twenty-four hours should be recorded.

No practitioner has done his duty who has not examined the urine frequently, and who has not posted himself daily as to the condition of the urine, the movements of the bowels and the condition of the skin.

Scarlet Fever and Quarantine.

W. A. Kickland, in the Colorado Medical Journal for January, says that cases should be removed from quarantine whenever desquamation is complete, provided there be no complications. This is usually from the third to the sixth week. All children before release should be anointed in the evening with a mixture composed of carbolic acid 2; eucalyptus oil 5; olive oil 100, followed in the morning with a thorough soap and water bath. This should be repeated four successive days. On the third day clean, sterilized clothing should be put on and again on the fourth day.

A most thorough disinfection should be made of the room and all clothing and utensils used about the patient. This should be under the immediate supervision of the health officer or his trained assistant. All articles which are not valuable should be burned or boiled, and all articles which are too valuable to be thoroughly disinfected should have been removed from the sick room at the beginning of the disease. It is the writer's practice to disinfect the rooms by burning sulphur with an excess of water vapor, 3 pounds to every 1,000 cubic feet, after all the articles have been arranged so that the fumes can easily penetrate. The

rooms are kept closed for twenty-four hours, then opened, aired, and sheets dipped in formalin (Schering's 40 per cent. formaldehyde), 1 pound for each 1,000 cubic feet, are hung in the rooms, which are again closed for twenty-four hours. Too much pains cannot be taken with this procedure, for it is after the visible signs have disappeared that the germs of contagion are apt to bring back the disease to the unprotected.

No domestic animals should be allowed in the house during the infective period. All utensils used in the sick room should be placed in boiling water or in a solution of bichloride, 1 to 1,000, immediately after using. All clothing used about the patient should be placed in water before leaving the room and afterwards boiled or burned. The discharges from the bowels should be received in carbolic acid solution, 1 to 20, and the urine should be rendered aseptic by the addition of bichloride tablets in sufficient quantity to make the solution 1 to 1,000.

No one should be allowed to visit the house except those in authority. The physician and others who must of necessity visit the patient should be protected by wearing a cap and a loose-fitting gown large enough to cover all the clothing and which has been dipped in a solution of Hg Cl, 1 to 500, and allowed to dry. This should be slightly moistened again before wearing. Overshoes or a separate pair of shoes should be worn while in the sick room. On leaving, the hands, face and beard should be washed in a reliable antiseptic solution. It is well to have extra thermometers, stethoscopes, etc., and leave them at the house or carry them in a separate package so that they may be thoroughly cleansed before coming in contact with others.

There should be some means of justly compensating the quarantined family for the time lost. The public shuts them up for its own protection, not theirs. The public should be willing to pay for it at least in a measure.

There should be appointed in each city and county a competent health officer, whose compensation is sufficient to justify him in giving enough time to the work to do it well. He should hold office during good behavior and his position should not depend on the caprice of the politician. He should visit every case of scarlet fever and raise the quarantine whenever he considers it safe to do do so, whether it be the end of the third or the tenth week.

Scurvy and Artificial Feeding.

J. P. Crozer Griffith, in the New York Medical Journal for February 23d, in discussing the relation of scurvy to recent methods of artificial feeding says that food containing or derived from starch seems to be a powerful etiological factor. Out of 356 cases of scurvy, reported by the American Pediatric Society, 214, or 60 per cent., were using a proprietary food. Cooked or partially cooked milk has an undoubted influence in a number of cases. He reports 16 cases of his own which shows that the patented foods often produce scurvy. Two of his cases throw some suspicion on barley water. The beneficial action of fruit juice is so marked that it is hard to get at the good done by the change of diet. In some of his cases the good effect of fruit juice was noticed when there was no change in the food.

Scurvy and Rickets in Young Children.

According to H. A. Hare in the Medical News for February 16th, scorbutus in infancy is distinctly a disease of the children of the well-to-do, while rickets is an affection of the poor. Rickets is constantly seen in hospital cases, while scorbutic cases are not infrequently met with in private practice.

The theory that rickets was due to a deficiency of bone-forming material in the food has given place to another, that it is due to the inability of the child to assimilate such material; the fault being more with the child than the food and this fault is caused by bad surroundings. Among the rich the artificial foods are used for some time and the sameness and lack of digestion cause nutritive changes.

Laryngeal cough or spasm may depend on either rickets or scorbutus, most commonly rickets.

In obscure cases in children he recommends attention to the diet before loading up on drugs. When scurvy develops after the use of artificial foods they should be cut off and natural food introduced with orange juice freely and beef juice for a time at least.

Syphilitic Disease of the Tongue

In the Indian Medical Record for January 23d, Christopher Heath discusses the syphilitic diseases of the tongue. Primary syphilis of the tongue, he says, is very rare and that personally he never saw a case.

Among the secondary affections we have fissures, mucous tubercles and superficial inflammation. With this latter we have

shedding of the epithelium and the characteristic bald patch. The inflammation may go on to ulceration, which is generally multiple and chronic thickening. The treatment of all these secondary forms is mercury. He uses a mouth wash beginning with one-fourth grain of the perchloride to the ounce, or 1 in 2,000 and this is gradually increased. The patient must hold this in his mouth for five minutes so as to give the tongue a good soaking. At the same time the patient must take mercury internally or by inunction. Tertiary lesions are to be treated by iodide of potash in full doses.

Spurious Meningocele of the Occipital Bone.

Jas. Sailer in the Pediatrics for February 15th, reports a case of spurious meningocele of the occipital bone. The patient was a child four years of age who about six months before fell down stairs and was drowsy for two hours afterwards.

A month later she developed vomiting, strabismus and staggering gait. The condition had grown steadily worse and about three weeks before she was shown a pulsating tumor appeared in the occipital region in the neighborhood of the external occipital protuberance. It communicated with the cranial cavity by an irregular opening in the occipital bone. A thrill was felt by palpation and a murmur heard on ansculation. An exploratory puncture proved that the tumor contained blood.

Tubercular Osteomyelitis of the Shaft of the Long Bones.

The Boston Medical and Surgical Journal for January 31st, says that Kuttner found only six cases of this affection among over 2,000. They are of two classes, the primary affections and the secondary, that is to say, those which extend from an inflamed joint. The primary are extremely rare; the anatomical appearance is varied, and consists either of circumscribed focus or a diffused process extending into the whole medullary cavity of the shaft. Either a tubercular bone abscess is formed or very rarely a condition like the spina ventosa of the short bones. The affection may extend to the epiphysis and joints. It usually attacks young children between the ages of two and six years, who as a rule are affected by multiple tuberculosis. A diagnosis is difficult on account of the resemblance to the process following acute osteomyelitis.

The secondary osteomyelitis is exclusively confined to the shoulder. In Bruns's clinic the cases were chiefly in adults, but the affection can also occur in children. Unlike ordinary osteomyelitis, the cartilage is not a complete protection from the invasion of the inflammatory process. The affection is a destructive one.

The M. S. Mixture.

In the Medical News for February 9th, Edward Adams advocates the use of the M. S. mixture for anesthesia. It contains ether 57 parts and chloroform 43 parts, and he claims for it the following advantages:

Stage of excitement and struggling are not marked.

It requires a short time to get a patient under, five or ten minutes.

Very little of the anesthetic is required. On an average about 40 c.c. are used an hour.

It is a comparatively safe anesthetic.

It is very pleasant to take.

The after-effects are not marked.

Patients recover quickly.

It can be used in nearly every condition in which either chloroform or ether is employed.

Chancroid and Chancre.

In the course of a clinical lecture reported in the Medical Bulletin for February, John V. Shoemaker, in answer to the question How shall we differentiate chancroid from chancre? says that we must know and remember that the former disease manifest itself within a few days after contact, while the latter does not display itself until after an incubation of two or three weeks, as a rule—to which there are few exceptions.

In chancroid inflammatory action runs high, the sore rapidly ulcerates, suppuration is abundant, and the pus inoculates the vicinity; so that several sores are often produced. A chancre is usually a solitary lesion, and, although it often ulcerates, the secretion is generally scanty. The base of chancroids is soft, and hence the old name of soft sore. The base of the chancre is hard and feels as if a piece of cartilage or parchment were imbedded in the skin. Chancroid causes active inflammation of the inguinal glands, which form large swellings in the groin, are tender or painful; the overlying skin is red, hot, and swollen; and suppuration is by no means an infrequent accident. The adenopathy or glandular enlargements, of primary syphilis are hard, nodular, and have little disposition to break down in suppuration. They can often be rolled around beneath the fingers.

If any doubt remain, the element of time will solve the question. Six weeks after contraction of the disease, if syphilitic, constitutional manifestations appear. Chancroid is purely a local disease, and is followed by no general contamination of the system.

Insects and Disease.

In the Pennsylvania Medical Journal for February, Emma O. Cleaver has an article on the role of insects in transmission of disease. In conclusion the following prophylactic manners are advised:

Keep food and drink covered, and free from insects. Boil drinking water. Cover dejecta while being disinfected and do not leave unburried for insects to find. Keep patients screened by mosquito-nets and free from insets while living, and when dead cover immediately with sheets wet in disinfectant solutions.

As to mosquitoes—screen beds with netting. Screen doors and windows of houses. Smudge fires may be used outside of houses. For person's skin, Canadians use a mixture of oil of tar and sweet oil. Find mosquito-breeding pools. If possible, drain them; in breeding season, flood or fill them up, or stock with fish, or cover every ten days or two weeks with petroleum. This oil kills the larvæ, and the adult cannot lay her eggs on it. Three dollars will furnish five coverings of a hundred-acre pond. Tree-planting is of use in these regions on account of the subsequent drainage of the soil.

Lymphatic Anemia in Children.

The American Journal of Obstetrics for February says that Alexander MacGregor, in the Lancet for September 29th, describes this form of anemia which he says is not uncommon in children. The disease runs a very chronic course and recovery is the rule.

The history of the cases shows that the glandular affection is in no way connected with those enlarged glands which usually become tuberculous, and the characteristic adenitis and the chronic course mark it sharply off from grandular fever. The anemia may or may not be marked, but it is easily rocognized. The adenitis is always marked, but it is easily overlooked because none of the glands are large enough to attract the eye. The glands are small and hard, and are always numerous in the cervical triangles and in the groins. The axillary glands are never affected. The bronchial glands usually are affected, as one may infer from the fact that cough is in many cases a troublesome symptom when there is nothing in the lungs to cause it. The mesenteric glands are probably also affected, but abdominal symptoms are rare. In many cases the spleen is distinctly enlarged. Catarrhal pneumonia of one or both bases is not uncommon. Examination of the blood shows a decrease of the red and a large increase of the white corpuscles, and of the latter the increase of the large uninucleated corpuscles is very striking. Nothing of interest can be gained from the family history. There is always a history of gradually failing health; the child becomes listless and easily fatigued, loses flesh, and becomes anemic. Cough is frequently a troublesome symptom, and it is usually worse at night. Occasionally there are night sweats. There is loss of appetite, the tongue is usually clean and the bowels constipated.

Melena Neonatorum due to the Bacillus. Pyocaneus.

Wm. R. Nicholson, Jr., in Pediatrics for February 15th, reports a case of melena neonatorum due to the bacillus pyocaneus.

The case was that of a male born at term in the Maternity Hospital of Philadelphia.

Nothing of note occurred until the 16th day, when a stomatitis developed. The actual bleeding began the next day and at first showed itself as a free flow from the mouth and throat. On the next day the stools contained blood and clear blood was afterwards frequently passed.

Death took place on the sixteenth day. Its cause was apparently acute anemia. The autopsy showed the presence of an acute triple infection, the organisms present being the staphylococcus pyogenes aureus, the bacillus ærogenes lactus, and the bacillus pyocaneus. Of these the first two were general infections. The bacillus pyocaneus was found only in the bile and tissues of the liver.

The gross lesions found at autopy were a generalized parenchymatous degeneration, a sclerosis of the pancreas, as acute enteritis, and a commencing cirrhosis of the liver. There were no signs of syphilis other than sclerosis of the pancreas, a condition which occurs also in many other diseases, as Kasahara has shown. There were no signs of ulceration detected.

The reasons given for considering the case to have been one of pyocanic infection were: the negative history of the first sixteen days of life with the subsequent de-

velopment of symptoms explainable only upon the assumption of an infection and the detection of the bacillus pyocaneus. The influence of the other two infections was considered to be predisposing.

Abdominal Section.

In the Kansas City Medical Index-Lancet for February, C. G. Davis reports 237 consecutive abdominal sections with 2 deaths. There were 87 hysterectomies, 11 appendectomies, 17 hernias, 72 oophorectomies, 20 cautery and incision of ovaries; one gall stone, 1 extrauterine pregnancy, two intestinal surgery, and 26 laparotomies for tumors, of uterus, broad ligament, loosening of adhesions, etc. He names the following elements as contributing to his success:

The employment of suggestion as an aid to anesthesia, with a consequent almost entire abandonment of opiates.

Complete antisepsis.

No alcohol was administered to any of these patients before, during or after the operation.

Alcohol and Muscular Work.

E. Destree, in the Quarterly Journal of Inebriety for January, gives a careful study of the effect of alcohol on muscular work.

He concludes that alcohol has an apparent favorable effect on the work product, whether the muscle is weary or not.

This favorable effect appears almost immediately, but is very transitory.

Immediately afterward alcohol has a very decided paralyzing effect. About half an hour after taking alcohol, the muscular power reaches a maximum that subsequent doses increase with difficulty.

The subsequent paralyzing effect of alcohol outweighs the momentary stimulation, and the total work product obtained with the use of alcohol is less than that obtained without it.

Paralyzing effects are not observed to follow the use of tea, coffee, and kola.

The conclusions from these experiments offer one more justification from the realm of science, for the struggle against alcoholism, for the highest welfare of society.

Bacteriology of Plague.

David C. Rees, in the Indian Medical Record for January 2d, in discussing the bacteriology of plague says that the microorganism may gain entrance to the body by any or all of the following ways:

By the skin or mucous membrane.

By the respiratory tract.

By the gastro-intestinal canal.

1. By the Skin.

This is the commonest way, and probably the only one, in bubonic cases. Infection may take place through wounds, scratches, or insect bites. The Austrian Commission states that it succeeded in infecting a rat by rubbing a virulent culture into the intact skin. The following insects are possible agents in carrying the disease: flies, fleas, bugs, ants, and mosquitoes. Yersin noticed that flies died in his laboratory in Hong Kong, and he succeeded in inoculating a guinea-pig from a culture obtained from an infected fly. Nuttall snbsequently fully confirmed this observation. Similar experiments have been performed on ants and bugs by Hankin and Nuttall respectively. Simond has done a considerable amount of experimental work with the fleas on rats, which points to the possibility that these insects are frequently carriers of the diseaes to man.

2. By the Respiratory Tract.

It has been already stated that under ordinary conditions the plague baccillus does not exist in the air, but it is possible that in densely crowded, close dwellings the disease may be contracted by ærial infection. More frequently, however, the bacillus gains entrance to the respiratory tract by inhalation from contact with infected dressings, discharges, etc., as, for example, from an infected person sneezing or coughing in the face of a healthy individual. Experiments have proved that rats may become infected by rubbing virulent cultures on the nasal mucous membrane.

3. *By the Gastro-intestinal Canal.*

Some observers believe the disease may be contracted from infected food or water, and they regard the buboes as secondary manifestations. In favor of this theory is the fact that the bacilli are frequently to be found in large numbers in the intestines of animals fed on plague organs or on infected grain. The plague bacillus has also been isolated from water obtained from a well near a plague infected dwelling. On the whole, however, it is unlikely that this is the way in which infection usually takes place. The Austrian Commission is inclined to believe that infection takes place sometimes through the tonsils. This may be so in those cases in which the cervical glands are those first affected.

Diarrhea of Entric Fever.

According to Treatment for January Wm. Murrel in the British Medical Journal says that while the enema of starch and opiun is useful in checking many forms of

diarrhea, especially the diarrhea of advanced phthisis, it is useless in the diarrhœa of typhoid fever; at all events, in this case it proved of no avail. The carbonate of bismuth in drachm doses administered in milk gave excellent results, probably by its mechanical action, in covering over and protecting the ulcerated Peyer's patches. The maximum doses of bismuth carbonate given in the British Pharmacopœia is 20 grains, but this is far too small, and there is not the slightest danger in giving drachm, or even ½ ounce, doses. At one time this salt contained traces of arsenic and tellurium as impurities—indicated by the "bismuth breath"—but the drug is now supplied pure, so that it can be administered freely.

Cutting and Crushing Operation for Stone in the Bladder.

Byron B. Davis, writing in Medicine for March on the choice of operation for stone in the bladder, does not favor the crushing operation very much.

He says that the mortality of lithotrity, when all classes of cases are considered, is no lower than that of the cutting operations.

The patient's condition after lithotrity is often no better than before.

Recurrences are much more frequent after lithotrity than after the cutting operations with drainage.

Lithotrity is not adequate to deal with the serious and complicated cases, and the simpler cases will most of them recover after any operation done aseptically.

Fatty Degeneration of the Heart.

Thos. E. Satterthwaite in the Medical News for February 2d says that fatty degeneration of the heart is a common affection, though it is not to be classed as a disease *sui generis*, but rather as a metamorphosis or process attending on loss of compensation in vulvular diseases, but also nearly as often on non-vulvular disease.

It is caused by fevers, toxemia, dyscrasias, disorders of nutrition, and mechanical injuries, but it may also be a physiological process as, for example, in senility or after parturition.

For practical purposes, it may be divided into three stages, the first or early; the second or intermediate, and the third or final, and each stage is capable of being distinguished by certain clinical signs.

In the early stage the prognosis is best for complete recovery, that is, if the patient does not yield to the primary disease, for in that case he will probably recover with a sound heart, provided of coure the heart complication is properly treated.

In the intermediate stage the prognosis is not good for the arrest of the fatty process *in toto*, but the functions of the heart may be so improved that the patient should be able to resume his former work and enjoy a fair degree of health for an indefinite period. In fact, we may expect a physiological if not a pathological cure.

In the third or final stage, which is marked by such profound implication of the internal viscera that their functions are in abeyance, the prognosis is always unfavorable. The end will rarely be delayed beyond a few months.

Gonorrheal Ulcerative Endocarditis.

A. J. Lartigan, in the American Journal of the Medical Sciences for January, Medicine for March, reports a recent case in which the proof of the gonococcal origin of an endocarditis is complete.

Inflammation of gonococcal origin, with involvement of joints, the peritoneum, and myocardium, has of late been comparatively frequent in literature, but the cases so far reported in which cultures have been made which absolutely excluded all other micro-organisms except the gonococcus are comparatively rare, according to the author not exceeding six cases. A careful study of these, together with the writer's own case, justifies the conclusion that gonococcal urethritis may be the starting point for a fatal septicemia induced by a pure infection with the gonococcus. Endocarditis and urethritis are occasional complications of such an infectious disease. The endocardial process may be incited by the gonococcus in the absence of any other germs.

Hypodermic Injections of Iodide of Sodium in Rheumatism.

According to Gaillard's Medical Journal for January, Otto confines his treatment of acute or chronic muscular rheumatism to the hypodermic injection of sodium iodide in 5 per cent. solution, of which he uses two syringefuls. The solution should be as recent as possible, since on standing it decomposes and liberates iodine, which renders the injection more painful. No untoward effects have been noted from the treatment, nor any abnormal sensitiveness special to different regions of the body, so that the injections were almost always made into the painful region itself. Within the next twenty to thirty minutes a more or less intense burning is felt, proportionate with

the age of the solution, and the pain begins to recede, while movement becomes more practicable. Beneficial results were prompt and remarkable, one injection of from five to ten centigrammes being generally sufficient. Otto has never met with a failure, and has come to discard all other therapeutic measures in the treatment of muscular rheumatism.

Management of Placenta Previa.

According to the Medical Record for February 23d, Ed. A. Ayers, before the Medical Association of the Greater City of New York, said that the best methods of procedure in cases of placenta previa were those that aimed at obtaining a living child.

Four methods were to be considered: (1) The use of the tampon in the vagina. (2) The use of the hands—manual dilatation. (3) Garrigues' bags. (4) Barnes' bags. He favored the Barnes' bags. In using the tampon we were uncertain as to what was occuring, and this was unsurgical. In manual dilatation we were obliged to occupy from fifteen minutes to an hour in securing dilatation, and it was almost impossible to do it without the hemorrhage continuing. Garrigues' bag was an inverted cone, and separated the placenta at the start. The process by manual dilatation required more time than was consumed in the use of the Barnes' bags. Barnes' bags began by stretching the internal os and the cervix between, and did not separate the placenta to the same degree. The left hand in the vagina held it in place, and if we used the double stopcock we could lessen the tension and could secure as much dilatation as was necessary to bring down the leg and get the child within the cervix, practically without any hemorrhage at all. He was satisfied with this method.

Lymphatic and Portal Infections Following Appendicitis.

In a paper before the Philadelphia county Medical Society, Munro offered the following conclusions:

That the retroperitoneal lymphatics are probably always infected to some extent in inflammation of the appendix, the degree of the infection not necessarily depending on the extent of the appendiceal inflammation; a mild, chronic appendicitis at times giving rise to a severe lymphangitis.

That the lymphatic disturbance may date its origin from an appendicitis occurring many months beforehand.

That a lymphatic infection severe enough to warrent local treatment is rare when compared with all the cases of appendicitis, but that such an affection is probably more common than a portal infection.

That mild infections of both the lymphatics of the portal system may yield to medical treatment.

That persistent fever, without other evident cause, should suggest one or both of these infections.

That spasm, tenderness, and later, fullness in the right loin, should indicate a retroperitonal infection from some source or other, possibly due to an appendicitis, though due in many cases to renal, hepatic, pleural or other lesions.

That chills and hepatic tenderness, associated at times with jaundice, may be of appendiceal origin, and that this origin, especially in obscure cases, should be sought for most carefully in physical examination, in the personal history, and, if necessary, in abdominal exploration.

That drainage in the loin gives prompt and satisfactory relief when pur or even a diffuse cellulitis has formed.

That prompt and thorough drainage of the liver together with removal of the appendix, offers the best means for recovery from septic infections of the liver.

That aspiration of the liver is an imperfect, unsatisfactory and unsurgical procedure. Abdominal section with definite free exploration of the liver and free opening of all abcesses within reach is far more satisfactory, not difficult, and less dangerous than aspiration.

New Method of Herniotomy.

The Medical News for February 9th says that A. L. Dentu has for the past 12 years made use of the following method of operating for the radical cure of inguinal hernia. The aponeurosis of the external oblique muscle is exposed through the same incision as in the Bassini operation and then cleaned up very carefully.

The sac is sought among the tissues of the cord distal to the external ring and dissected out by any procedure of choice. Then within the inguinal canal, without slitting up its anterior wall, by traction and dissection the balance of the body and the neck of the sack are freed into the internal abdominal ring. Just lateral to the site of this ring a small incision, about a centimeter long, is made through the external oblique aponeurosis in the direction of its fibers. Through this hole a special forceps is passed bluntly tearing its way into the upper extremity and along the course of the inguinal canal as far as the external ring.

Here it sizes the fundus of the sac and draws it upon itself upward and outward through the little hole. At this point the neck may be twisted and doubly ligated or transfixed and ligated, the fundus cut away and the stump returned to the internal ring or included in the mattress sutures which close the little incision. The redundancy of the anterior wall of the canal is corrected by making a fold in it parallel to its long axis and secured by mattress sutures placed virtically to the surface of the abdomen at intervals of about one centimeter. The edges of the external ring are finally brought together by a similar plan. Thus the canal and the ring are narrowed so as to allow the cord to pass freely through. This method is found to be very applicable to cases in which the sac can be entirely emptied primarily or after freeing slight adhesions. Its advantages are that the external oblique aponeurosis is nowhere divided over the canal, that the apposed surfaces are not cut edges, but broad intact areas, and that all the sac is obliterated as in the Bassini method. His results are as good as with the Bassini operation.

Brain Tumors and Cysts.

H. H. Hoppe, in the Journal of the American Medical Association for February 2d, reports seven operations for brain tumors and cysts. He lays down the following conclusions:

Tumors of the cortex or subcortical region of any portion of the cerebral hemispheres which can be reached through the calvarium are operable.

If possible the operation should be performed early, when the tumor is small; but even large tumors and those infiltrating in character, have been operated on with success.

A study of the successful cases shows that, with few exceptions, brain surgery is limited to the psychomotor areas (Von Bergmann).

The result of surgical interference even in the most successful cases, rarely leads to complete recovery. Ths general symptoms due to intracranial pressure disappear, but the focal symptoms, viz, the epileptic seizures and paralysis, either remain permanently or are only diminished. It must not be forgotten, however, that the life of the individual has been saved.

Cerebellar tumors are inoperable. This is the law laid down by Oppenheim and concurred in by Bergmann. Those of the posterior and upper surface of the cerebellum, near the lower margin of the occipital lobe have been removed, but the operation has been invariably fatal. The danger is due to the crowding of the large sinuses into a small field of operation and the pressure upon, and displacement of, the medulla. Occasionally a cyst has been luckily tapped, but we can never localize with certainty, and we all know how disastrous exploratory operations are in this region.

The cumulative experience of all writers is against the exploratory operation.

Shall we advise palliative operations? On this subject authority is divided. Horsley, Bramwell, Annandale, Sanger, Sahli, Sinking, Keen, Bruns, and perhaps Oppenheim are in favor of palliative operations for the relief of violent symptoms of increased intracranial pressure in rare cases. Von Bergmann and Von Braman are against it. My limited experience in cases in which I refused to advise an operation and the operation was, nevertheless, performed, has been with those who oppose the operation.

I do not agree with Oppenheim, that gummata should not be operated on. I have in my possession the brain of a man who refused to be operated upon which shows that the gumma could have been removed successfully. This gumma was located accurately and diagnosed as such in the arm center during life. In my opinion, tubercles, if isolated and located so as to be operable, should be operated on, other things being favorable, metastatic carcinoma are inoperable.

Complete Transposition of Viscera.

According to the New York Lancet for February, Lenormant and Durand-Viel have dissected a perfect case of "situs mutatus," or complete transposition of the viscera.

The patient was a woman, aged 22, who died of subacute phthisis. It is not stated that the anomaly was detected before death. There was no defect of development in any of the viscera. The right lung had three lobes, the left two, the apex of the heart pointed to the right, the arch of the aorta passed backwards from left to right, the right recurrent laryngeal passed under and turned upwards behind it, whilst the corresponding nerve on the right side turned up under the subclavian artery. The innominate artery gave off the left subclavian and common carotid, the right subclavian and common carotid each arose direct from the arch. The azygos veins were reversed in a similar manner, and it was the right vagus that ran along the front of the esophagus. The stomach and liver were also consistently reversed, the spleen lay above

the right loin, the head of the pancreas lay to the left, the tail to the right. The vena cava lay to the left of the aorta, the right ovarian vein ran into the renal vein, the left into the vena cava.

Posterior Uterine Displacements.

Walter B. Chase, in the New York Lancet for February, says that posterior deviations with fixation from adhesions are usually a serious menace to health and often a barrier to child-bearing.

He concludes that this condition of affairs can best be treated by laparotomy; that after the adhesions have been severed the cure should be completed by maintaining the uterus in anterior position: first, by intraperitoneal shortening of the round ligaments; second, if this is insufficient, resort should be had to anterior abdominal suspension or fixation; that experience, while not settling all points associated with this subject, nevertheless has demonstrated that the efforts of maintaining the uterus in an anterior position either by ventro-suspension or ventro-fixation are, from the uncertainty of the degree and extent of the adhesion, not devoid of danger in the case of conception, which should be considered, and in many instances provided against; that ligation or resection of the Fallopian tube is a more rational procedure than ovariotomy, for the prevention of conception, where justifiable, as it does not unsex the woman, and saves her from the premature menopause and its unpleasant consequences—a physiologic reason of much weight; and the value of these methods of treatment of posterior deviations is amply demonstrated, and the necessity of their adoption should be more generally considered.

Subcutaneous Symphysiotomy.

G. Ernest Herman, in the New York Lancet for February, points out the advantages of the subcutaneous operation, especially as regards its simplicity, quickness, small risk of sepsis, insignificant hemorrhage, absence of gaping wound and of subsequent scar.

He urged that if the maximum benefit from symphysiotomy was to be secured it should be done under the most favorable conditions. It ought not to be postponed until the necessity for some kind of operative delivery had been demonstrated by the complete failure of the natural powers. The accoucheur should ascertain the size of the pelvis before labor and estimate also the size of the child. If he decided upon symphysiotomy it should be done at the most favorable time, and that was immediately after full dilatation of the uteri. The frequency with which in contracted pelves the membranes ruturned prematurely would make the dilatation of the cervix with Champetier de Ribes' bag usually advantageous. Dr. Herman pointed out that one risk at present inseparable from symphysiotomy was that of injury to the urethra; this was likely to happen in cases in which an attempt was made to deliver by symphysiotomy a child too large to be delivered in that way, and thus the pubic bones were excessively separated. This was to be guarded against by carefully estimating the size of the child beforehand.

Resections in Suppurative Coxitis.

According to the Boston Medical and Surgical Journal for January 31st, Nelaton reports in detail two cases of resection in a boy of 15 and a woman of 26 years.

The first, after two years of treatment with poor result, was subjected to resection. Persistent fistula; anchylosis not yet complete. Walks, but with a limp. The second case treated a year and a half with fair result—wound closed after five months. Shortening 3 centimeters. No anchylosis. The cases do not present a sufficiently long interval after operation to warrant so favorable a set of conclusions as the author draws.

The chief interest of the article is that the author definitely concludes that the best result to be hoped for in operatian of cases even comparatively early is anchylosis in good position. Late excision gives results preferable to conservative treatment, but less good than the desired anchylosis.

Recovery from Large Dose of Morphine and Atropine.

Medicine for February quotes H. R. Goodrich, in the Philadelphia Medical Journal of November 19th, as reporting the case of a middle-aged man in good health who had passed through a period of business and social reverses during which period he attempted to end his life. He had been suffering from insomnia for a few weeks before, and to relieve this would occasionally take morphine combined with atropine, but was by no means a habitual user of the drug. At the crisis of his depression he dissolved eighty-one tablets, each containing 1-4 grain of morphine and 1-150 grain of atropine sulphate, in a small glass of water, and drank the whole quantity. He remembered nothing for the next forty-eight hours, when he awoke with no worse ef-

fects than a condition of deep hebetude and pronounced soreness and pain when attempting to move, the latter resulting from lying so long in one position. The tablets contained twenty grains of morphine and nearly one-half grain of atropine. The fact that recovery took place is believed to have been chiefly due to the antagonistic properties of the two drugs.

Seborrhea.

In the St. Louis Medical Review for February 9th, Wm. P. Lath has an article on seborrhea and its pathology. He says that the only true seborrhea is the condition usually referred to as seborrhea oleosa. This may occur not only on the scalp, but often also on the face, sternum, interscapular and genital regions. Any inflammatory process may develop upon such a surface, as acne or ezema; the latter would then be characterized by the features of a true seborrhoic eczema. Syphilitic and psoriatic lesions in these places would be seborrhoic in character. Seborrhea oleosa does not produce acne or eczema, but acts merely as a predisposing factor.

The affections known as seborrhea sicca, pityriasis capitis, seborrhea corporis, etc. are all grades of seborrhoic dermatitis, inasmuch as in the earliest form, pityriasis capitis, evidences of inflammation have been found, which becomes more pronounced as later stages are reached. Since the investigations of Unna, in regard to the morococcus and the flask-shaped bacillus, and those of Sabourand, concerning the microbacillus, have not been confirmed by other authorities, we have merely clinical grounds for believing that these affections are parasitic in nature. These grounds are: (1) the circinate character of the lesions, (2) their marginate outline, (3) peripheral extension while clearing in the centre, (4) the evidence of infection derived from brushes used by a person having the disease, (5) its direct spreading from one member of a family to another, (6) its anti-parasitic remedies.

Club-Foot in the Adult.

According to the Journal of the American Medical Association for February 2nd, 37 patients between 13 and 35 years of age have been cured of club-foot by Vulpius, two years having elapsed in the case of 26 and four years in 15.

A number of cases are described, with illustrations showing the condition before and after treatment, which was carried out without sacrificing or mutilating the bones in any way. Subcutaneous tenotomy of the tendon Achilles is always done; the plantar aponeurosis is occasionally divided, the posterior tuberosity of the calcaneum exposed and pulled down with hooks. Transplantation and shortening of the tendon were valuable aids in correcting the deformity and in two cases supramalleolar osteotomy was performed. No splints nor troughs are applied, except a night splint in congenital talipes. The success is due to "modeling correction of the deformity," kneading the foot, stretching the shortened soft parts on the concave side from the skin to the capsule of the joint, until the foot can be brought into an overcorrected position without effort and without springing back. It is not necessary to try to complete the process at one sitting, especially in adults. Each sitting concludes with the application of a plaster cast to maintain what has been accomplished. Tenotomy of the tendo Achillis is the last step. The cast is kept on between two and four months. Massage and exercises are useful in the after-treatment, but are not indispensable, as the resumption of the patient's occupation usually produces the same effect, but more slowly.

Empyema of the Maxillary Sinus.

Treatment for January says that Max Halle, in a thoughtful article on this subject advocates that it should be treated by an opening through the lower nasal fossa as was first suggested by Krause.

He describes his method of operation as follows: Cocainization, by a 10 to 15 per cent. solution, of the mucous membrane of the nasal fossa at the lower and anterior part. After this has become insensitive, a Krause trochar is passed into the nostril close to the septum, but with its point directed outwards and somewhat downwards, so that the opening through the external wall of the nasal fossa will be made near the bottom of the antrum. The point of the instrument is forced through the bone by a gradual firm pressure, together with some rotatory movement, and after it has penetrated into the substance of the bone, it is pushed inwards until the hilt of the trochar enters the nose. The advantages claimed for this method are that the operation is easy, and can be carried out without general anæsthesia and in a comparatively short space of time. It further avoids abnormal communication with the mouth, together with its attendant disagreeable taste of pus and possibly iodoform. Healing is also said to be quicker, and, what is perhaps most important of all, the results

are more permanent. The author considers that this method should be tried, at any rate firstly, in every case of empyema of the antrum. Should recovery not follow the treatment, as may occur in a certain small proportion of cases, an opening through the canine fossa is indicated. Apertures made through the alveolar process, save immediately after the extraction of a carious tooth, are entirely unjustifiable.

Differential Diagnosis in Diseases of the Spinal Cord.

In a paper before the Medical Society of the State of New York, as reported by the Medical Record for February 2d, Edward D. Fisher said that the diagnosis in diseases of the spinal cord was dependent on knowledge of the structure and functions of the different parts of the cord. The anterior horns controlled the nutrition and action of the muscular system. Any destruction of this region must cause paralysis and wasting of the muscles involved. The lateral tracts were essentially motor in function, having no sensory or nutrititional influence. Hence disease involving these tracts caused only paralysis without wasting of the muscles; and as cerebral inhibition was cut off, exaggerated reflexes, as seen in lateral sclerosis. The posterior tracts were entirely sensory in function; disease here must cause disturbance in feelings and co-ordination, dependent on sensation, as seen in locomotor ataxia. The principal diseases under these headings were easily classified as follows: 1st. Diseases of the anterior horns, as poliomyelitis acute and chronic, progressive muscular atrophy, and hemorrhages into the cord substance. All these diseases were especially characterized by paralysis with atrophy of the muscles. 2d. Diseases of the lateral or crossed pyramidal tracts, as seen in lateral sclerosis following myelitis, injuries, Pott's disease, etc., in which there was paralysis without atrophy. 3rd. Diseases of the posterior columns or tracts, which, being only sensory in function, gave sensory disturbance without paralysis or atrophy, as seen in tabes.

Diagnosis of Neurasthenia.

The Medical Times for March says that the principal diagnostic symptoms of neurasthenia according to Eskridge are the following:

Exhaustion without complete loss of power; insufficient reserve force for rapid recuperation from physical or mental exertion; intense self-consciousness and a habit of introspection. The patient is cognizant of the perverted function of every organ. Numerous subjective sensory disturbances, mental depression, undue emotional manifestations, irritability and insomnia are often present. There is pain and tenderness in the back, most intense in the lumbar region of traumatic cases, in the cervical region of non-traumatic. There is hyperesthesia and paresthesia; muscular weakness and fatigue, without paralysis or contracture, narrowing of the field of vision after exhaustion of any kind. Auditory hyperesthesia exists and the deep reflexes are increased, the pulse is accelerated by exercise, pressure over tender spots, exhaustion, irritation or excitement. Vasomotor disturbances and digestive derangements are common. As between neurasthenia and hysteria, in the former there are no paralysis, contracture, anesthesia or convulsions, all of which are common in hysieria. Neurasthenia develops gradually, hysteria quickly, especially after emotion or shock. In hysteria, too, we have the globus hystericus and clavus, and the symptoms change from day to day.

Epilepsy.

Thomas H. Baker, in the American Practitioner and News for January 1st, says that the treatment of epilepsy is largely empirical.

The bromides stand pre-eminent, and should be thoroughly tried first in every case.

The bromide of potassium, sodium, calcium, strontium, or a mixture of any or all, may be used in gradually increasing doses. If they arrest the attacks, they must be continued for a long time. Nitrite of amyl is beneficial in arresting the attacks when the period between the aura and the convulsion is sufficiently prolonged to permit of its administration. Nitro-glycerine, antifebrin, sulphonal, and several other drugs will sometimes produce temporary improvement. Personally, he has a high opinion of opium in the form of a gummy extract, in doses ranging from one-tenth to one-half grain three times a day for several weeks. At the end of this time stop it abruptly and prescribe the bromides in large doses.

In at least three cases in his practice under this treatment the convulsive attacks ceased—one for five years, one for more than one year, and in the other for six months.

The hygenic management of the patient is important. Exercise in the open air, nutritious food, with little or no meats, and the avoidance of all substances calculated to cause gastric or alimentary irritation.

All toxic agents under suspension, such as alcohol, should be interdicted. Bowels should be kept regular and baths taken daily. Of course, it goes without saying that diligent search should be made for the cause, and this removed if possible.

Heredity in Diabetes Mellitus.

According to Medicine for March, J. H. Pleasants, in the Johns Hopkins Hospital Bulletin for December, reports six cases of diabetes mellitus in a single family occurring in three generations.

That heredity has long been recognized as a factor in this disease is shown by the fact that the first references to it in the literature were in 1696. In 1798 Storer called attention to what he termed "mild habitual or family diabetes." Modern writers place hereditary incidence at from 27 to 5 per cent., the variation of property being due to the different character of the patients who furnish statistics. He is of the opinion that the importance of heredity in this disease has been underestimated. The disease often occurs in an uncle, aunt, or cousin, while the parents escape. In the same way a grandparent may be diabetic while the parent escapes. When successive generations are affected there is a tendency for the disease to develop at a progressively earlier age. When more than two members in the same generation are diabetic there is a tendency for the disease to appear at approximately the same period of life. Hereditary diabetes developing in the first two decades of life is often of a severe character, while the cases developed later in life are generally of a mild type. In a certain number of cases the disease has appeared in the children prior to its appearance in the parents. There is frequently a neuropathic tendency in diabetic families. Cases are recorded in which several children were diabetic, while the others suffered from various psychoses. Obesity is often a characteristic of families in which diabetes occurs.

Polyneuritis Following Grippe.

According to Diemer, Medical Record for February 2d, the history of neuritis, particularly of grippal neuritis, is of recent date.

The anatomical conditions underlying polyneuritis are not well known, for only one case of this kind has been followed by autopsy. It is not difficult to explain the pathogeny of this neuritis. If grippe is an infection produced by an agent which is peculiar to it, all the phenomena which are its clinical expression are nothing else than an intoxication due to the toxins secreted by this agent. Grippal polyneuritis begins generally during the period of convalescence, like the neuritis of diphtheria to which it has been compared. After some days, perhaps some weeks, the temperature falls, the nervous phenomena properly speaking, thorax or gastro-intestinal, have disappeared, and troubles of sensation or motor troubles open the scene. Soon there developes a more or less complete picture of peripheral polyneuritis. Motor troubles are constant in grippal polyneuritis. The parts affected by this paralysis are very variable, so that it is impossible to say that grippal polyneuritis has a predilection for any one group of muscles. It can be said that any muscle may be affected by the paralysis and that consequently the functional troubles which are its consequence vary according to the diverse modes of localization of the lesions. The reaction of generation is present in the muscles affected. Ataxic phenomena are frequently noticed in this paralysis. Finally, one of the last characteristics common to this paralysis is the flaccid condition of the muscles affected. As to muscular atrophy, it is generally noted but it is not very marked.

Etiology of Malignant Tumors.

The Journal of the American Medical Association for March 2d, quotes A. Hegar as saying that the cell of a malignant tumor is an injured tissue cell whose differentiation has been impaired.

The injury may have occurred in embryonal or extrauterine life or possibly in the germ-plasma. Injurious factors are numerous, among them the products of bacterial metabolism have an important place. The tissue cell possesses the inherent faculty of growth, which is necessary to form a malignant tumor. A stimulus to proliferation is, however, required to set this faculty in action. The injurious factor and the stimulus to proliferate, in all probability, frequently originate from the same source, the toxins evolved by micro-organisms. In the prophylaxis of malignant tumors everything tending to the normal regeneration of the cells should be favored, especially by diet suitable to the individual, the occupation and the age. Infections of all kinds should be scrupulously avoided, gonorrhea and syphilis in particular. Local irritation of the tissues and stagnation of excreta should also be prevented. Local venous hyperemia should be relieved and abolished, and all defects in the epithelium prevented by a mild astringent or zinc or boricized salve.

Cardioptosis.

In the Boston Medical and Surgical Journal for March 7th, Ferrannini is quoted in regard to displacements of the heart which are secondary to changes in other organs and also primary essential ptosis of the heart first described by Rummo.

He refers to the various theories which have been formulated to account for enteroptosis in general and cardioptosis in particular, and reports 4 new cases of primary cardiac displacement. They occurred in adults between eighteen and thirty-four years of age, 2 men and 2 women, in none of whom was there any hereditary taint. All showed a marked epigastric pulsation. On percussion, the lower border of the heart extended $3\frac{1}{2}$ to $4\frac{1}{2}$ centimeters below the ensiform process, while above the relative dullness began as low as the third interspace or even the lower border of the fourth rib. There could, therefore, be no doubt that he was dealing with a displacement of the organ and not an enlargement. Ausculation showed the presence of mitral stenosis in all cases. In all four patients certain abnormalities of development were found as shown by the disproportion between the face and the rest of the skull, the slender bones, the small stature, and the deformities of the thorax aad extremities. In one there were pronounced mental defects.

Pathology of Rheumatic Fever.

The Journal of the American Medical Association for February 2d, quotes F. J. Poynton. in the Practitioner for January, in which he reviews the various theories of rheumatic fever, the nervous, toxic, chemical, infectious and malarial theories and gives at length a description of the cocci found by himself and Paine, to which he attributed the causation of the disease. He thinks that the diplococci are destroyed at the sites of local lesions, though their destruction usually results in some damage to the important tissues in which they have been localized. This explains the fleeting character of the symptoms in acute rheumatism. The worst manifestation of rheumatic fever is usually pericarditis, and in such cases he has obtained the most virulent cultures of the organism. The relapse that are so frequent, he thinks, can be explained by a certain form of the coccus that persists, recovering virulence if the vitality of the tissues is lowered by exposure, premature exercise, or possibly improper diet. The problems of heredity, etc., are yet to be elucidated.

Excretion of Urine in Neurasthenic Subjects.

Treatment for February quotes from an article by de Fleury in which he gives the result of his observations made on sixty cases.

The author arrives at the conclusion that the important characteristics of the urine in cases of neurasthenia are: (1) Diminution of the quantity passed in twenty-four hours, with consequent increase of specific gravity; (2) increase in the proportion of uric acid to urea; (3) increase of earthy phosphate in relation to the alkaline phosphates; (4) excess of chlorides; (5) lowering of the coefficient of oxidation.

The results obtained tend to shew that in neurasthenia the nutritive activity of the tissues is lowered through derangement of the nerve centres; thus the author attributes the changes observed in the urine to the direct influence of the nervous system. Acting on this relationship between cause and effect, Dr. de Fleury considers that the indication for treatment is to accelerate the nutritive changes in these patients, to make their oxidation processes more active and complete, to produce as it were more urea and less uric acid.

These ends may, the author thinks, be most satisfactorily attained by saline injections used with moderation, and by the employment of electrical baths.

Pharyngeal Adenoids.

In the New York Medical Journal for February 2d, Pnilip D. Kerrison writes of pharyngeal adenoids, their frequency and sequelæ.

He concludes that pharyngeal adenoids in children are very much more common than they are generally supposed to be.

That cases of moderate development are often not recognized.

That adenoid growths of moderate size, though not necessarily accompanied by marked symptoms at the time of their development, are often responsible for grave conditions felt during adolescence and adult life.

That, unless removed, pharyngeal adenoids are in nearly all cases accompanied by more or less impairment of hearing.

That the presence of adenoids adds greatly to the gravity of intercurrent diseases, and increases the patient's receptivity to the germs of tuberculosis and diphtheria; and therefore.

That the periodical examination of children for the presence of adenoids should become a routine measure of prophylaxis.

That cases of moderate development, no

less than those in which the growths are of large size, demands prompt surgical treatment.

That the treatment should aim at complete ablation or removal of the growth, which in most cases is best accomplished with the patient under the influence of a general anesthetic.

Radical Cure of Inguinal Hernia.

A. M. Phelps, in the Medical Record for February 2d, gives his method of operating for the radical cure of inguinal hernia. The points of originality are:

The reproduction of large masses of inflammatory material to restore the abdominal parietes, and the introduction of a fine silver wire filigree throughout the entire inguinal canal, over the transversalis fascia, which adds to the strength of the weakened abdominal parietes and prevents the new material from stretching.

Cutting off the hernial sac, and retreating from the operation exactly as from any abdominal operation, stitching up the peritoneum and transversalis fascia with a continued suture of fine silver wire.

The use of fine silver wire with a continued suture. To sterile the wire, after it has been thoroughly boiled or steamed, throw it into pure carbolic acid a few minutes before the operation, after which dip it into alcohol, hold it over an alcohol lamp, and burn the alcohol upon the wire. This sterilizes thoroughly.

Drainage should be avoided if possible; but, if necessary in thick abdominal walls with much fat, a glass drain is the best.

Sick Room Disinfection.

Rob't G. Schnee, in the Cleveland Medical Gazette for March, in the course of an article on this subject offers the following directions of Novy:

All cracks or openings in plaster or floor and about the door and windows should be closed by cotton or strips of cloth.

The linen, quilts, blankets, carpets, etc., should be stretched out on a line in order to expose as much surface as possible to the action of the disinfectant. They should not be thrown iuto a heap.

The walls and floor of the room and the articles in it should be thoroughly sprayed with water. If masses of matter or sputum are dried on the floor they should be soaked with water and loosened. No vessel of water should be left within the room.

One hundred and fifty centimeters (5 ounces) of the commercial 40 per cent. solution of formalin for each 1,000 cubic feet of space should be placed in the distilling apparatus and as rapidly distilled as possible. The key-hole and spaces about the door should then be packed with cotton or cloth.

The room thus treated should remain closed at least ten hours.

If there is much leakage of gas into surrounding rooms a second or third injection of formaldehyde at intervals of two or three hours should be made.

Sterilization of Milk.

A. D. Blockader, in the New York Medical Journal for February 2d, says that milk sterilized by heat is altered to an extent varying according to the elevation of the temperature used in the sterilization and the duration of its exposure.

Its proteids are modified, and rendered apparently less digestible; but our knowledge on this subject is still indefinite and dependent chiefly on clinical experience; nothing has yet been proved by laboratory experiment.

The combination of its saline ingredients with the proteids, a combination which we must admit is not absolutely proved, but which appears to be extremely probable, is more or less broken and the salts assume a condition in which they are less readily absorbed.

Natural ferments whose presence in milk may with much probability be inferred, and which may materially assist its digestion in the infant's stomach, are destroyed.

An alteration takes place in the emulsion, normal to milk, which may also have a distinct effect in lessening the digestibility of cow's milk by the infant.

Tuberculosis of the Peritoneum.

Wallace Neff, in the Virginia Medical Semi-Monthly for January 25th, says that tuberculous peritonitis is a surgical disease, and should be treated surgically and not medically, for the simple reason that when treated medically they die and when treated surgically a cure is effected in a large proportion of cases and marked improvement follows in all.

The proper treatment is a laparotomy, rapidly and carefully performed.

Danger from operation is very slight, the mortality being less than 3 per cent.

Of the many theories advanced to account for the cure in these cases, the antitoxin theory of Gatti seems to be the most rational. It is not unlikely, however, that the good results obtained are due to a combin-

ation of several of the various causes assigned.

Sepsis is not apt to occur on account of the pathological changes that have taken place in the peritoneum.

Tuberculous infection of the wound does not occur.

Antiseptics are useless, and drainage should not be employed if it can be avoided, as it is likely to leave a permanent fistula.

Most of the deaths after the operation have been due to a general tuberculosis, or tuberculosis of some other organ.

The successful treatment of this disease depends upon the diagnostic ability, good judgment, technic and skill of the man behind the knife.

Tumors of the Testicle.

The Maryland Medical Journal for February quotes Duply as saying that there is often considerable difficulty in diagnosticating tumors of the testicle, particularly as between chronic vaginalitis and neoplasms

At a certain stage no certain diagnostic features are present; neither the history, nor any other sign, such as pulsation of the spermatic artery, dilatation of the cutaneous vessels, function, palpation, etc., furnishing the differentiation.

Many cases occur in which operation alone can settle the question. Enlargement of the lymphatic glands and ulceration, of course, render the diagnosis easy. In malignant testicular tumors castration is contraindicated when lymph-gland metastases exist or when both testicles are involved, particularly in young subjects.

Although the operative results so far show a very poor prognosis, still castration should always be tried if metastases have not occurred.

Vesical Tuberculosis and Vesical Calculus.

Joseph Wiener, Jr., in the New York Medical Journal for March 9th, in discussing blood in the urine gives the following points in the differential diagnosis of vesical tuberculosis and vesical calculus:

VESICAL TUBERCULOSIS.

1. Tuberculous family history.
2. Most frequent between 16 and 25 years.
3. Urine very light, odorless, feebly acid or neutral, sometimes containing tubercle bacilli.
4. Stream often arrested voluntarily on account of pain.
5. Marked irritability of bladder at night.
6. Sudden appearance of bright hemorrhage, not influenced by rest.
7. Usually a few drops at end of stream, accompanied by straining.
8. Distinct periods of quiescence, uninfluence by violent exertion.
9. Sudden relief of suprapubic pain and rapid cessation of pain in glands after empting bladder.
10. Persistent post-scrotal pain.
11. Involvement of epididymis, prostate, or some other organ.

VESICAL CALCULUS.

1. Gouty or rheumatic family history
2. Most frequent in adult life.
3. Urine turbid, often offensive, mucus and pus, urates, oxalates or phosphates.
4. Stream arrested involuntarily.
5. Irritability only diurnal.
6. Hemorrhage ceases on rest.
7. Hemorrhage most profuse at end of micturition.
8. No distinct periods of quiescence, except on rest.
9. Pain often persists after emptying the bladder.
10. Persistent post-scrotal pain absent.
11. Involvement of epididymis, prostate, or some other organ, absent.

Noncancerous New Growths of the Stomach.

According to the Maryland Medical Journal for February, V. Hacker says that those tumors arising from the connective tissue or smooth muscle of the stomach wall furnish an entirely different group of clinical symptoms from the carcinomata. They form, as a rule, much larger growths, and very frequently on clinical examination mistakes are made as to their origin and location. The diagnosis of neoplasm of the omentum, mesentery, liver, kidney, spleen, etc., is often erroneously made.

In these cases there are either no stomach-disturbing symptoms present or only those which might be explained by a tumor pressing upon the stomach. The growth is generally outward from the greater or lesser curvature, but in those cases in which the tumor involves the region of the pylorus it can lead to stenosis, with the resulting symptoms typical of cancer of that region.

These tumors are most commonly myomata or fibromyomata, but sarcomata and myxomata are found. The differential diagnosis between these various forms is often hard to make, and is of particular importance in those cases where the growth hangs free in the abdominal cavity, as it is necessary to resect a portion of the stomach wall if the neoplasm is malignant, but only to enucleate if not.

Von Hacker demonstrates a patient 26 years old, in whom twenty-two months be-

fore a stomach resection had been done for a tumor the size of a man's head, which grew from the lesser curvature. At the operation it was doubtful whether he had to deal with a pure myxoma or a myxosarcoma. The microscope, however, showed a pure myxomatous growth, and twenty-two months after the operation the patient was free from any sign of recurrent tumor.

Operation for Movable Kidney.

Robert T. Morris, in the Medical Record for February 23d, describes a method of fixation for loose kidney which has been very satisfactory in his hands. He states that he found the method in some foreign journal and made a note of it at the time, but failed to keep the author's name in mind.

In this operation a flap of capsule including the larger part of the mesial surface of the kidney is incised with a scalpel and the flap of capsule then stripped up from the parenchyma but remaining attached at the convex border of the kidney. The flap of capsule is drawn through a slit in the psoas muscle, or in the quadratus muscle, indifferently as one chooses, and is there sutured in place. This brings bare parenchyma also in contact with the psoas or quadratus fascia, where it forms a firm connective tissue attachment. The operation certainly avoids the necessity for passing sutures through the parenchyma of the kidney and he has had no reports of recurrence of loose kidney up to the present time. It is not possible to keep track of all of one's cases and in writing to forty or fifty patients for post-operative reports several letters are required on an average for each patient, so that it gets to be quite a serious matter, but all patients or their physicians were asked at the time of the operation to report any recurrence.

Obstetrical Operations.

Edward Reynolds, in the Journal of the American Medical Association for February 16th, considers the major obstetrical operations from the standpoint of the general practitioner. He gives a tabular report of 23 successful consecutive cases. The operations considered are forceps and version, induction of premature labor, craniotomy, cesarean section and symphysiotomy.

He holds that when the conditions are such that the child can be delivered with anything like reasonable ease by forceps or version, one of these operations is preferable to any cutting operation.

When the mechanical relations would render forceps or version unusually difficult forcible and prolonged, and when the mother is in the favorable class, the equally low maternal mortality and the far lower fetal mortality of the Cesarean section render it the operation of choice.

When the mechanical conditions make the intrapelvic delivery of an intact child at term impossible or unduly difficult, the great superiority of the Cesarean section over the induction of premature labor in fetal mortality, and its extremely low maternal mortality render it again the preferable operation.

When the ordinary operations fail and the woman is in the unfavorable class, symphysiotomy is the operation of choice, and may be expected to lead to a favorable result for both mother and child in the great majority of cases, provided always that the degree of mechanical difficulty permits of its application.

When in the unfavorable class of cases, the degree of relative disproportion between head and pelvis is too great to admit of a safe symphysiotomy, cranitomy to the living child should be unhesitatingly chosen, since the maternal mortality of either form of the section is so enormous, and because he can not doubt that the life of the potential mother of many children is of more value than that of any unborn fetus.

Treatment of Typhoid Fever.

F. J. Smith, in the Lancet of February 2d, as reported by the New York Medical Journal for February 16th, says that in the treatment of typhoid fever two principle are of overwhelming importance. These are the daily examination of the stools and the appetite of the patient.

In the stools may be found (*a*) undigested milk or other food, showing that too much food is being given; (*b*) blood, which, if present in any quantity, calls for the administration of opium; (*c*) sloughs, the total bulk of which indicates the amount of ulceration; and (*d*) fæculent *debris*, the desirable constituent of the stools. The appetite of the patient should be, within very wide limits, the sole arbiter of his diet, provided vomiting, hemorrhage, or distension are all absent. The temperature is entirely ignored. Where the appetite is good a wide range of dietary is allowed; where there is no appetite, the best food is plain cold water. The author has kept patients for days on nothing but water, with the best results. On the first indication of nausea after food, resort should be had to the plain water diet for twelve hours.

Tympanites is an ominous complication and most difficult to treat. The author gives two drachms of sulphate of sodium every two hours until the bowels are acting freely. Constipation should never be allowed to persist. Excessive diarrhœa points either to too much food or to extensive ulceration of the colon. The occurrence of hæmorrhage calls for starvation and opium. Alcohol is unnecessary for the treatment of typhoid fever. The author believes that anti-inoculation is destined to be the universal method of treatment and prophylaxis in typhoid fever.

When is Gonorrhea Cured?

Paul Thorndike, in the Boston Medical and Surgical Journal for February 7th, says in answer to this question, no one knows. He goes on to discuss the question in detail and concludes that the methods of examination at present at our command are fairly adequate to determine in any individual case whether there are still contagious possibilities in that case.

That the methods of treatment at present at our command are fairly adequate for the treatment of those cases where remnants of disease are found.

That all such remnants of disease should be treated whether they contain gonococci or no; and that they can be intelligently treated only after they are found and located.

That there are a few cases where the remnant of discharge persists, but where no cause for its persistence can be found by the writer in spite of many most careful efforts. Some of these cases must probably be allowed to marry with traces of discharge still discoverable; but none such should marry until every possible effort has been made to demonstrate its non-contagious character and until the possibility of future trouble has been explained. It is the writer's custom to have more than one opinion in any case of this kind.

Trigeminal Neuralgia.

C. H. Hughes, in the St. Louis Medical Review for February 9th, discusses the treatment of trigeminal neuralgia with and without the knife.

His suggestion for a neuro-surgical plan of successful treatment of trifacial neuralgia, when neuro-therapy fails, would therefore be this: Mentally prepare the patient for its radical relief by securing hopeful consent to a combined surgical and neurologic treatment. Put her or him to bed, give chloroform, extirpate the involved peripheral nerves if you wish, keep both eyes closed (not necessarily by stitching) for the same length of time as one is kept closed by stitching to prevent the eye sloughing, so likely to follow gasserian gangliotomy without it. Keep the eyes closed to secure brain and nerve centre rest. Keep visitors away from patient, maintain absolute brain and neural quiescence, such as follows the operation, by appropriate medication, and maintain at least a six to ten weeks' treatment on lines above indicated.

With this plan put in faithful practice gasserian gangliotomy would take its place among the lost arts, and no more victims of this terrible trifacial horror would walk the plank of surgical shock into the silent halls of death.

Slight Febrile Conditions During the Puerperal Period.

According to the Medical Age for February 25th, K. Franz (Centr. f. Gynak.) believes that in most cases the slight rises of temperature observed in lying-in women are traceable to the penetration of saprophytes into the uterine cavity. The mere presence of these, however, does not produce fever, which occurs only when a retention of the lochiæ takes place.

The saprophytes found in the uterine cavity of women presenting slight febrile disturbances are probably identical with the vaginal saprophytes. Manual intervention during labor has in most cases no causative influence upon the fever unless it brings about some vaginal excoriations which in turn offers favorable culture media for the preexisting germs.

Slight elevation of temperature occurs twice as often in primiparæ as in multiparæ.

A shortening of the third stage of labor increases the liability to fever, while tedious labor, protracted expulsive stage, and early rupture of the amniotic membranes are of little, if any, importance.

The Cocaine Habit.

Cocainism, says G. W. Norris (Philadelphia Medical Journal, Feb. 9, Medical Age, February 25th) is the most insidious of all drug habits. The use of the drug being unaccompanied by disagreeable after-effects —headache, nausea, vomiting, etc., which are met with after the ingestion of opium or alcohol—the vice is readily and rapidly established.

Cocainism is occasionally acquired by the local use of the drug in diseases of the nose and throat, teeth, etc., but more often as a substitute for opium or alcohol.

Cocaine is eventually tolerated by the system in huge doses. (One case is recorded where sixty grains daily was consumed.)

A relatively large number of habitues are found in the medical and dental professions (it is said thirty per cent).

The continued indulgence in cocaine invariably, and usually soon, leads to marasmus, with mental, moral, and nervous degeneration.

The smallest fatal dose on record is one-third grain hypodermically.

While many cases of acute intoxication are being continually reported, there are relatively few fatal cases. The majority of such are the result of large doses injected into the urethra and bladder—*e. g.*, in two cases, five and six fluidrachms respectively of a five per cent. solution into the urethra.

The amount of cocaine sold yearly is rapidly increasing, and its self-prescribed use among the laity and lower classes is becoming proportionately more frequent.

Modern Treatment of Incipient Pulmonary Tuberculosis.

Treatment for February says that Louis Henry, of Melborne, draws attention to the important role which the leucocyte performs not only in defence but in attack.

Each ductless gland in the body may be looked upon as a fort in which leucocytes are housed ready for resistance to an attack by parasitic micro-organisms. The tonsils form a sort of outpost or first line of defence, and their excision should never be lightly advised. Treatment by antiseptics or specific remedies, though for a time apparently successful in alleviating special symptoms, are, after all, only palliative, and the results are purchased at a heavy cost. The great deal to be arrived at in treatment is to invigorate the patient's power of resistance, to stimulate the vitality of the individual to rapid assimilation and repair, and to keep the mucous surfaces normal. These objects, in conjunction with oxygenation of the blood, a good metabolism, and a natural excretion, are the principles which must direct treatment.

Sun Baths in the Treatment of Tuberculous Joints.

Acording to the Medical Times for March, Millioz, unlike Finsen, of Copenhagen, who uses the ultra-violet rays of the spectrum in the treatment of lupus, has employed the rays of sunlight to act on tuberculous joints. He disapproves of the systematic fixation of the limb in which the tuberculous lesion is situated. The patient is placed on a suitable couch in the sunniest part of a garden or other open place, with the affected joint fully exposed to the rays of the sunshine. To protect the head of the patient, some sort of sunshade may be improvised. If the upper limb is the seat of the disease the patient may preferably be allowed to walk about in the garden. The duration of the sun bath should be several hours a day. During the intervals the joint is covered with wool, and rather firmly bandaged. Sometimes after the first or second bath the joint becomes more painful, but this soon passes away in most cases; but if it should continue it may be necessary to intermit the treatment for several days. Rapid pigmentation of the sun's rays has been noticed to coincide with comparatively quick recovery. The joints are said to become smaller, the skin healthier-looking, the discharges, if such are present, less purulent, and the fistulæ close. Such results, however, may require months of treatment.

Pneumonic Plague Treated by Large Doses of Carbolic Acid.

According to the Indian Medical Record for Januasy 9th, J. Bell, in the Lancet, says that a case of pneumonic plague ended in recovery in the Government Hospital at Hong-Kong.

This form of plague is very fatal, and the writer knows of no case of recovery in Hong-Kong. The patient, a healthy man, aged 24, was admitted suffering from gonorrhœa. His temperature was 101 degrees, and, save for the local condition, he seemed well. Gradually he became extremely ill; three days after admission his temperature had risen to between 105 degrees and 106.4; he became apathetic, delirious, with dry, furred tongue and quick pulse; coarse rales developed in both lungs, with expectoration of thick, bloody sputum, which was found to be full of typical bacilli. A diagnosis of plague was made. There were no buboes.

Hypodermic injections of digitalis and strychnia were given every four hours, and 12 grains of pure carbolic acid in solution were given every three hours.

On the next day there was a marked change for the better. The temperature slowly fell to 102 degrees, and only rose to 103.4 degrees in the evening. The tongue was moister, the pulse became less rapid, and gained strength. Bacilli were still in the sputum.

Temperature became normal three days later, the lungs cleared up, the sputum ceased. Injections were given less fre-

quently as symptoms abated. The carbolic acid was decreased after 48 hours to four hourly doses, and was stopped on the day the temperature fell to normal.

Convalescence was rapid. The disease was contracted some 14 days before admission to the hospital. The effect of the carbolic acid was most marked; 280 grains were taken without causing toxic symptoms.

Olive Oil in Typhoid Fever.

According to Treatment for February, Paget, in the Lancet for December 8th, writes of the value of olive oil injections in the treatment of typhoid fever.

His method is to give an injection of olive oil per rectum every twelve or twenty-four hours. The quantity used for adults should be about a pint at a time, and should be retained in the bowel from twelve to twenty-four hours if possible. If not returned in this time, it may be brought away with an ordinary soap-and-water injection, a fresh dose of olive oil being administered two or three hours later. After a week or ten days the daily use of injections can be discontinued, and they are given only when the temperature rises or the bowels are confined. With diarrhœa it is imperative to give olive oil, and those who try it will find it more efficient than opium or any other drug in bringing about a natural discharge of fæces. Occasional small doses of calomel from 1-10 to $\frac{1}{2}$ grain are useful if the oil is not sufficiently stimulating to make the bowels act. Dr. Paget claims that with this method of treatment there are no sequelæ, tympanites, perforations, or heart failure. No cold baths are necesssasy, and the most unskilful nursing sufficient.

Saline Infusions in Diphtheria.

In the Indian Medical Record for January 2d, E. E. Laslett states that in the acute stage of diphtheria saline infusions are employed to dilute the toxin by the introduction into the system of an additional amount of fluid which helps also to flush out the kidneys. In the late stage they are used when along with the persistent vomiting; nutrient enemata are also rejected. Inasmuch as the fluids of the body are thus constantly dimished, the blood must become more viscid, and the action of the heart be impeded. Saline infusions tend to prevent this state of affairs. Laslett used two teaspoonfuls of common salt to the pint of water, utilizing as a site of injection the loose skin below and outside of the right breast. Gravity was the force employed the bag being held about three feet up. He found that from ten to fifteen ounces can be injected in half an hour. The child does not seem to mind the operation at all. Fifteen cases are reported. The only safe conclusion drawn (seven died, but the type was severe), is that the treatment seemed to have some influence in diminishing both the frequency of onset of symptoms of heart failure and their severity when they did occur.

The Leading Editorials of the Month.

The Majesty of the Law.

What a fine thing it must be to be a Judge and settle delicate ethical questions regardless of the prevalent opinion of humanity, says The Medical News.

Nothing need ever disturb a Judge any more than the Cardinal who was dining on a Friday at the house of a lady who had forgotten the fast of the Church. "Let all that is on this table be fish," said the Cardinal, and he straightway proceeded to make a good dinner.

It has long troubled the medical profession that its members should be subpœned to appear in court, regardless of their appointments and office hours. Lawyers are not so summarily treated, but are consulted as to their convenience. Dr. Keen was once interrupted in the midst of an important operation by a process server, but he refused to leave the operating-table, as his patient's life would be endangered, and the Judge excused him.

The shortsightedness of common sense would have said, save your patient always and then go to court. But who ever heard of other witnesses being kept waiting, of a case being postponed, or a verdict delayed, or any of the terrible contingencies that might occur if a physician delayed to ease a hurt or save a life. No, a case in hand proves it. Dr. W. D. Moore, of Philadelphia, was late by half an hour in court, whither he had been summoned as a witness in an accident case. The Judge, we spare him the notoriety of mention, fined him ten dollars. He pleaded that he had been with a patient who was critically ill, and that he had tried to catch the train. "Well, then," said the august Judge, "because you tried to catch the train I'll take off the ten dollars, but remember," and here let physicians note the decree, "it were better that the patient should die than that the community's witnesses should place themselves in contempt of Court."

The Biblical implication is that only "the

Judge of all the earth" is infallible, therefore we must not place too much stress on the dictum of the Judge of Philadelphia; for we think that if he had been able to kick a dog or slam a door, accidentally, when he felt himself constrained to accept the doctor's excuse, he would not have loaded himself with so much responsibility concerning the ethics of medicine and the law.

The Duty of the Physician to the State.

While the political atmosphere in some of our large American cities and states is not of the most respirable character, there are indications that the majesty of the law is not held at too low an estimate, says the Jour. of the A. M. A. Every now and then evidence is afforded that the courts are not inclined to look upon the acts of the medical man with the liberality and consideration to which his profession would seem to entitle him. Only recently a judge in an eastern city, in remitting the fine imposed upon a physician for contempt of court, because he was late in answering a subpena, by reason of attendance on a patient serously ill with diphtheria, is quoted as saying that "it were better that the patient should die than that the Commonwealth's witnesses should place themselves in contempt of court." We are sure this new judgment will not receive universal acceptance, either by the bench, the bar, the medical profession or the laity. The physician's occupation is not a business in the ordinary sense of the word, and it would bode ill for the entire fabric of society if, in any case of gravity, particularly in the existence of an emergency, he were compelled to yield the welfare of his patient to his obligations to the state. The state is at best but the aggregation of its citizens, and it has no right, by arbitrary methods, to jeopardize the life of a single one of its constituents. On the contrary, there is an indissoluble bond between the two, each of which must recognize the prerogatives and the privileges, not less than the duties and the obligations of the other. We think it will by common consent be agreed that the first obligation of the physician is to save life and relieve suffering. Only after he has fullfilled this requisition can he devote himself to his duties to the state. That this is sound doctrine, not alone in theory, but likewise in practice, the experience of the centuries amply demonstrates. But it is by no means implied that the physician is justified in any degree in neglecting or shrinking his obligations to the state. On the contrary, these are not less incumbent on him than on other citizens: but when it comes to the question of whether he shall jeodardize the welfare of his patient to obey the summons of the court, we are sure that there will ever be but one decision.

Chorea and Its Treatment.

The treatment of chorea is one which appeals to both the pediatrist and the neurologist, says the Interstate Medical Journal. It is brimful of goodness, and sends joy to the heart of the practitioner who has to deal with this disease. In no other nervous disease is treatment with medicaments so satisfactory as in the disease of chorea. Intelligent treatment in this disease means cure for the patient and thanks from the parents. The disease has been sadly neglected in the past, and many cases have been allowed to continue, mainly because the medical attendant has been in the habit of regarding this disease rather "untreatable." This should not be, as we know of decided success in its treatment, where it is intelligently carried out.

In first order, children with chorea should be kept from school. There are several reasons for this: First, because the disease becomes worse when children are sent to school, where their surroundings tend to make them more irritable and peevish, and, hence, accentuate the disease. Secondly, it is a well-known fact that the disease is contagious in the sense that one school-child with chorea will infect the whole school-room. A remedy which should be tried first of all in every case is arsenic. It can be given in the form of Fowler's solution or as acid arseniosi. Together with arsenic, the galvanic battery should be utilized. The cathode pole should be applied over the region of the heart, and the anode over the spinal column. using about five or six milliamperes daily. After arsenic we can recommend antipyrin in this affection. It has a splendid effect, and its use should be rigorously persisted in until the benefits that usually come are seen in the given case. Utmost quiet should be enjoined upon these children. They should be put to bed early and should arise late in the morning. Applications of cold have been recommended, usually over the spinal column, although in many cases warm applications will be found more agreeable. Strict attention should be paid to the heart and its working. We know that endocarditis is often seen in this disease. With the following out of such treatment as above outlined, it can be confidently assured that beneficial results will accrue.

Dr. Keen on the Progress of Surgery in the Nineteenth Century.

According to the Medical News the surgeon's art at the end of the Eighteenth Centry was little more than skillful butchery; and yet the surgeon who amputated a limb or removed a cancerous breast had his heart wrung as no surgeon of to-day has by the suffering he was obliged to inflict to save life, and by the uncertainty of the success of his operation. To-day the suffering and the uncertainty are reduced to a minimum through the discovery of anesthesia and antisepsis; with the result that the skilled speed that was once so necessary to shorten the agony of the knife is now replaced by the deliberate skill required in minute dissections, and the ever-present dangers of blood-poisoning, erysipelas and gangrene are banished by the knowledge of the bacteria that cause them.

Dr. Keen, in his very comprehensive and critical history of the Progress of Surgery During the Nineteenth Century, published in the New York Sun of Sunday, Feb. 3d, traces the great factors that have revolutionized this branch of medicine, and it is with a feeling of amazement that we wonder how such advances could have been made in so few years.

It is to the underlying sentiments and to the quiet individual work that we owe the detailed success. The discovery of ether and chloroform was even in itself perhaps the greatest complete discovery, but the exploding of the theory of spontaneous generation and the proof of the resistance of bacteria by Pasteur, with the discovery of antisepsis by Lister, were but the beginning of endless experiments made by patient laboratory workers on countless of the prolific lower animals, and of a series of discoveries that have run every diseased tissue of the body to its origin. The interest in this resume of surgery lies for us, therefore, not so much in the distinguished names of discoveries, but in the co-operative work of all surgeons of the world. One of these forces has been the impetus in the study of anatomy and pathology. It is only very recently that the requisite material for such studies has been provided by law. Formerly, to steal a dead body was the only means of acquiring a cadaver. In England up to 1832 a regular traffic in human bodies existed as well as here.

Sir Astley Cooper, in his testimony before the Parliamentary Committee made a shiver run down the backs of the noble lords by saying that in order to dissect the body of any of them it was only necessary for him to pay enough. As a result of the atrocities that were perpetrated in order to acquire sufficient material, the laws in England and of most of the States have made it possible to obtain a reasonable number of cadavers.

Another cause and effect of increased skill in operations is the invention of instruments of precision which ingenious surgeons of every land have contributed to the science and an equal factor has been the constant interchange of methods by surgeons by means of the medical journals that have increased with such astounding rapidity during the last twenty-five years. Prior to the last few decades there were a few celebrated men to whom people came for major operations all over the country. An Astley or a Pancoast was himself the genius that made difficult operation successful in past decades; to-day it is applied technic or the collaborated results of the work of different men. Willard Parker's operation for abscess above the groin, the precise significance of McBurney's point, these and other new ideas have been spread over the whole civilized world by means of the literature and now, after twenty years, there is probably not a city in the United States in which some surgeon has not performed successfully the operation for appendicitis.

Operations on the stomach, the kidneys, the lungs, the heart and the brain, the organs that were heretofore considered impossible to touch, are every day becoming more common; and not only are these done by the few celebrated surgeons who have devised them, but by the internes in hospitals and the young men of the country.

With the Roentgen ray illuminating one's very bones, and the application of spinal anesthesia, the new century has dawned with vast possibilities; and Dr. Keen states that marvelous as has been the advances of surgery in the Nineteenth Century, especially in the last thirty years, he believes that still more wonderful things lie hidden in the realms of surgery that the Twentieth Century will reveal.

To Exclude the Quack.

According to the Medical News, a new medical bill has just been introduced into the Senate of New York State which demands the attention of every practitioner in the State. After certain minor modifications it should, we believe, receive their earnest support. The text of the proposed bill is as follows. The matter in italics is new.

Section 1. Section one hundred and fifty-two of chapter six hundred and sixty-one of the laws of eighteen hundred and ninety-three, entitled "An act in relation

to the public health, constituting chapter twenty-five of the general laws," is hereby amended to read as follows:

Section 150. Construction of this article. *Any person shall be regarded as practising medicine within the meaning of this act who shall prescribe, direct, recommend, or advise, for the use of any other person, any remedy or agent whatsoever, whether with or without the use of any medicine, drug, instrument or other appliance, for the treatment, relief, or cure, of any wound, fracture, or bodily injury, infirmity, physical or mental or other defect or disease.* This article shall not be construed as *prohibiting the service of any person in an emergency, or the domestic administration of family remedies; nor shall it be construed* to affect commissioned officers serving in the United States army, navy or marine hospital service, while so commissioned; or any one while actually serving on the resident medical staff of any incorporated hospital; or any legally registered dentist exclusively engaged in practising dentistry; or any manufacturer of artificial eyes, limbs or othopedic instruments or trusses in fitting such instruments on persons in need thereof *when such artificial eyes, limbs or orthopedic instruments or trusses are prescribed by lawfully qualified physicians*; or any lawfully qualified physician in other States or countries meeting legally registered physicians in this State in consultation; or any physician residing on a border of a neighboring State, and duly licensed under the laws thereof to practice medicine therein, whose practice extends into this State, and who does not open an office or appoint a place to meet patients or receive calls within this State; or any physician duly registered in one county to attend isolated cases in another county, but not residing or habitually practicing therein. This article shall be construed to repeal all acts or parts of acts authorizing conferment of any degree in medicine causa honoris or ad endum or otherwise than on students duly graduated after satisfactory completion of a preliminary and medical course of not less than that required by this article, as a condition of license.

Section 2. This act shall take effect immediately.

The bill calls for little comment; its provisions are straightforward and its purposes plain. It is not special, nor class legislation; it does not seek to hinder legitimate competition; it is not meant to work hardship on any class, especially not the manufacturers of proprietary remedies, who seem to be arrayed against some of its provisions; it is simply a plea to protect the community from the quack and the charlatan.

"A law for the purpose of protecting the people from incompetent practitioners of medicine, which compels educated physicians to undergo examinations to demonstrate their ability, and which cannot be enforced against quacks and charlatans—who, because they do not use drugs, claim they are not practicing medicine within the meaning of the law—certainly cannot be said to accomplish the purpose for which it was enacted." Such are the provisions of our present medical law, and it is time that a more radical and perfect instrument should be placed on our statue books.

The Report of the British Medical Association's Anæsthetics Committee.

The New York Medical Journal says that a committee appointed by the British Medical Association in 1891 to investigate anew the subject of anæsthetics presented its report last summer. The report, as now printed, makes a quarto pamphlet of 134 pages. The committee delegated its work to an analysis subcommittee consisting of Mr. Hutchinson, Dr. Childs, Dr. Dudley Buxton, Mr. G. Eastes, Dr. Hewitt, and Mr. Rowell. Principally from the hospitals of Great Britain, but to some extent from private practice, the subcommittee obtained a large number of data concerning cases of anæsthetization, which, in their analysis, they classified into "uncomplicated cases," in which, so far as the effects of the anæsthetic were concerned, nothing unusual occurred; "complicated cases," in which there were unusual symptoms or sequelæ referable wholly or in part to the anæsthetic; "cases with minor complications," showing some noteworthy departure from the usual phenomena, but not giving rise to actual anxiety or danger; "cases of anxiety," with symptoms due wholly or in part to the anæsthetic and requiring the adoption of remedial measures, but not involving immediate danger; "cases of danger," with effects due partially or entirely to the anæsthetic and threatening the patient's life; and "cases of death" due wholly or in part to the anæsthetic. The anæsthetic substance employed, including mixtures and sequences of substances, were forty-five in number. In all, there were 25,896 cases analyzed, including 13,393 in which chloroform was used, and 4,595 of ether anæsthesia. This disproportion shows the extent to which chloroform is still employed in the United Kingdom, in spite of repeated demonstrations of its comparatively dangerous nature, demonstrations

that are emphasized in the report now under consideration.

The data relate only to general anæthetics. They have been analzyed from various points of view, and the report, which is largely tabular, shows abundant evidence of arduous and painstaking work on the part of the committee. At present we can deal with it only in so far as it relates to fatal cases, and, even at that, we must limit ourselves to the deaths from chloroform and those from ether. There were eighteen deaths under chloroform anæsthesia, of which three are considered to have been due entirely to the anæsthetic, and four to the anæsthetic principally and to the patient's condition secondarily, while in the eleven others either there was doubt as to the relative shares taken by the three elements, the anæsthetic, the patients condition, and the operation, or death was distinctly due to one or both of the two other causes rather than to the anæsthetic. Of the deaths under ether anæsthesia, which appear to have been three in number, not one was held to be due entirely to the anæsthetic. Grouping the fatal and the dangerous cases togother, the subcommittee find that with chloroform there is a danger rate of 0.582 per cent., and with ether one of 0.065 per cent. Taken as a whole, the report bears out the opinion, which is growing to be a more and more widely disseminated conviction, that, of the two general anæsthetics most commonly employed, chloroform is far the more dangerous.

The Medical Aspects of the Siege of Peking.

According to the New York Medical Journal, the opening article in the January number of our excellent contemporary, the China Medical Missionary Journal, by Lillie E. V. Saville, M.D., is entitled The Siege of Peking—Its Medical Aspects. It appears that there was a large proportion of physicians among the besieged, twenty in all, besides a retired naval surgeon, and nine of them were women. On June 21st the International Hospital was organized in the British Legation. The staff consisted of Dr. Pool, of the British Legation, and Dr. Velde, of the German Legation. The women physicians were asked to act as nurses, and they gladly did so, says Dr. Saville. Miss Lambert, of the S. P. G. Mission, took charge of the nursing service, and three American ladies superintended the kitchen and stores, which were "beyond all praise." "Nowhere else," says the author, "was there such fragrant pony soup, such really eatable mule stew, and I think the officers and men often thought it was worth while to be slightly wounded to get a few days good feeding."

"The unity which was such a striking feature of the seige in Peking," says Dr. Saville, "was nowhere more manifest than in the International Hospital," "Differences of nationality, creed, and professional status," she goes on to say, "were laid aside, and all worked with much happiness together." Nevertheless, it was judged best to group the patients by nationality so far a possible, in order that every one of them might have somebody to talk with. The Indians and French were together, the Russians were in a room by themselves, and the "one room was always full of the bright, interesting little Japs." The English and Americans naturally went together. In a ward devoted to officers and civillian volunteers there were British, American, German, French, Italian, Austrian, Dutch, Australian, and Russian patients. Comfortable bedding, much of it the fruit of "very much self-denial on the part of others," was almost miraculously furnished for every patient; there were very few bedsteads, but every man had a mattress and sheets and pillows. The most varied expedients were resorted to to furnish bedding and clothing. The lower pillows were made of the straw jackets of wine bottles; eider-down quilts were cut up to make soft pillows, and "a long piece of Chefoo silk, found in the Mongol market, made shirts, as did best damask linen and bright yellow cotton. 'Imperial' shirts these were called."

Nearly all the material for surgical dressings was supplied by Dr. Velde, who, fortunately, had a large supply, all of the German army type. He also had a sterilizer and that had to be used when it finally came to making muslin curtains take the place of prepared gauze, and bags of peat of sawdust the place of wool. The hospital was small at first, occuping only two rooms in a bungalow, but it grew with the increase of the wounded until at last there was an operating-room with two tables, the instruments for an operation were always sterilized, there were five wards, and there were other special quarters for the sick and wounded. As the fighting was all behind barricades, wounds of the head and of the upper extremities greatly preponderated. Deep wounds were seldom examined thoroughly at the outset, even when there was no aperture of exit, but they generally did well, the clotted blood proving "the best air-proof medium that could have been devised."

Dr. Saville appends to her article a tabular statement of the casualities, distinguish-

ing the nationalities of the patients. There were fifty-six Americans engaged. Seven of them were killed or died of wounds, and ten received wounds that did not prove mortal. There were forty-eight Frenchmen, and every one of them was wounded, eleven fatally; but it is explained that the French alone counted wounds that did not incapacitate the men for duty. We find it difficulty to understand, however, how, of the twenty-five Japanese, five were mortally wounded and twenty-one others were wounded, unless one man, having recovered from his first injury, was wounded and counted again, but this does not seem to be stated. The deaths from disease were remarkably few, only two in a total force of 407 men. They were both among the Russians and were due to dystentery.

No notes of the cases were kept during the siege, for "no one had the time," and the table given is said to be but a summary of "the barest statistics" kept. Dr. Saville declares that she has no data, and that her account is "the merest sketch" from memory. We have no doubt of its substantial accuracy, and it is certainly of great interest. Incidentally, the author gives brief histories of a few individual cases. One of them, that of an Austrian lieutenant, a noteworthy. A shell wound carried away a portion of the vault of the cranium about two inches square, exposing the dura mater and the brain. There was very severe hæmorrhage from the longitudinal sinus, but the patient did remarkably well, and in about a fortnight left the hospital as a convalescent. It was apparently after that time that "a good deal of pus began to well up from the wound," and the opening was enlarged by chiselling and some pieces of lead were removed. In a few days the patient was up and about again. He again left as a convalescent on the day of the relief, but two days later he was brought back with a temperature of 104.5 deg. F. He was very restless and delirious, and on the following day a purpuric rash developed on his hands and quickly spread to the trunk and limbs. A diagnosis of typhus was made, but subsequently this was changed to one of meningitis. The hospital was then broken up and the patient had to leave, but a fortnight later Dr. Saville learned from Dr. Velde that the lieutenant had recovered completely and had left Peking.

Why is the Average Life of Physicians so Short.

Various estimates have been made of the average length of life of medical practitioners, some placing it as low as fifty-two years, others as high as fifty-six, says the Medical Dial. Clergymen live, on an average, ten years longer. The estimates have been based largely on statistics of general practitioners. A few figures relating to specialists would be interesting and would probably make a more favorable showing. It has long been recognized that typhoid fever has been a potent factor in reducing the average lifetime of physicians. Diphtheria has also done its part and tuberculosis has produced a death rate among physicians which is double that among the clergy. From these dangers the specialist is comparatively free.

Dr. Alfred Moeglict has contributed interesting statistics (Deutsche Aerzte-Zeitung, Nov. 15,) which go to prove that the medical teacher has a prospect of a shorter life from the day he first occupies his professional chair. If the normal death rate be represented 100, that for physicians would be 111 and for medical instructors 113.8.

But, after all, are not the causes of early death among physicians to a large degree preventable? The man whose life work is to teach others to take care of their health would naturally be presumed to take care of his own. Too commonly, however, we find him doing the very opposite. Exposure to infectious diseases he cannot avoid, but cannot the risks be greatly lessened by proper attention to disinfection, and a due regard to the maintenance of a good physical condition which is the strongest safeguard against the onset of disease? Exposure to inclement weather has sent many a physician to an early grave. Long drives in storms and at unseasonable hours are unavoidable but careful provision against these hardships by warm clothing, comfortable conveyances, and judicious eating and drinking would greatly lessen the dangers. The average business man works during the day and sleeps at night and rests on Sunday; the physician frequently works night and day not excepting Sunday. While a certain amount of overwork is unavoidable, the physician himself is responsible for a great deal of the injustice he suffers in this direction. We have frequently known of visits being made late in the evening which could just as well have been made during the day, or of a journey undertaken at night in order that office hours might not be broken into.

Young physicians are sometimes given to boasting of the way in which they abuse themselves by overwork. How often we meet the man who has not had his clothes off for two weeks, or who has had no sleep for ten nights, except what he could get in

his buggy. Very brave and self-denying; but would it not be better for the doctor and his patients if he undressed once in a while and took a bath; if, when pressed with work, turned over an unimportant case to a less popular physician while he himself took a much needed night's sleep in a comfortable bed. Worry, overwork and bodily suffering often tempt the unwary to use stimulants or narcotics, or both. The use becomes a habit and too often alas cuts short a bright and promising career.

A study of the habits of physicians leads to the belief that if their lives are short it is their own fault. If they followed certain rules there is no reason why they should not live as long as other people. These rules may be briefly summed up as follows:

1. Do not work beyond your strength. The judicious worker can accomplish more than the spasmodic worker.

2- When your practice becomes too large, turn over the most unprofitable part of it to younger and less busy men. As soon as possible decline all night work.

3. Avoid intemperance, be home at meal times, and retire early.

4. Save a part of every year's income so that you may have something to fall back on in sickness or old age.

5, Take at least a half day's vacation once a week and a month once a year.

Confidence.

The Cincinnati Lancet-Clinic says that this is a therapeutic agent, the value of which can neither be overestimated nor exaggerated. Through this sentiment—and it is a sentiment that is intangible—there emanates a trustful belief that is sufficiently suggestive to control armies, define the policy of nations, and unlock the treasuries of the world.

All banking is done on confidence; shake an aggregate of individual beliefs and a panic ensues. So in medicine, a trustful confidence is necessary as a therapeutic measure to be utilized in a treatment of disease.

These thoughts come up in view of the coming to our city next week of one who notably inspires confidence in himself upon the part of others. How does he do it? The writer does not pretend or assume to have an intuition as to the potentiality that is so manifestly present in his individuality. Back of a modest demeanor there is a presence that begets a confidence which cannot be dispelled. What is it? Character? That is present in a laudable degree, but scores of other physicians are his match in this attribute. Is it a superior knowledge of the science and art of medicine? Many others would be his peers before a board of examiners. Is it an impressive presence? Others are as prepossessing. Then what is it? Seemingly but one reply can be made. He is the embodiment of one who inspires confidence through a well-balanced mind and body, the equilibrium of which is not to be disturbed, no matter what shocks and storms may overtake him.

To secure and retain the confidence of any people is a great accomplishment. It means bread and butter, wealth and luxury. To attain this intangible sentiment is to make an effort of one's best.

An instance of one long since dead. Two are recalled in memory who were not only tyros. but ignoramuses in the science of medicine; but they knew men, and inspired them with a confidence that was sublime. Hence, the attribute of confidence is one that is to be cultivated, nourished and strengthened at every opportunity. Financially it is worth more than any other commodity that can be named. As a therapeutic agent it will do more in the way of curing the ordinary ailments of men, women and children than any article in the materia medica.

In an employment of physicians the inquiry is rarely—almost never—made as to the school of medicine to which a designated physician belongs. The great question is as to the man, and has he inspired the amount of confidence that will give an entrance to my lady's chamber.

There are those who seem to be utterly unable to inspire any one with confidence, and, unfortunately, sometimes such persons gain entrance to the medical profession. It is a misfortune to them, as they cannot help being utter failures; nor is it to be seen that they would be aught else in any other occupation. They are apparently misfits in life, born out of due season. It is their misfortune apparently more than their fault, and yet there are but few who cannot cultivate and nourish a disposition that will lead to a greater confidence than they now inspire.

Hysteria and Crime.

According to The Medical Times, the rerecent attempt to kill Father Keller, a well-known Episcopal clergyman, by Father Barker, in New Jersey, on the ground that he had made an assault upon his wife more than a year ago, and the possibility, and even probability, that the assault existed only in the immagination of a hysterical woman, recalls to our memory similar cases which have resulted in a ruin of character

in men who, in all probability, were perfectly innocent. Foremost in this class we recall the case of Bishop Onderdonk, of this diocese, more than fifty years ago. The Bishop was an old man, of unsullied reputation, sympathetic and paternal in his character, with warm friends and bitter theological enemies. And there is no enmity so bitter, no hate so relentless, as that found among the clergy. Physicians are bad enough, but the clergy take the palm. The Bishop was accused by the young wife of a clergyman with undue familiarity. They were on their way to a church, where the young clergyman was to be ordained. He sat on the front seat with the Bishop. On their arrival at their destination the wife told her husband that the Bishop put his arm around her and shocked her with his lascivious familiarity. Still the ordination went on, without objection of the candidate. A year after, in the midst of a theological dispute, the charge was brought, and hurled against the Bishop. The wife had been baptised by the Bishop, who had often fondled her on his knee in infancy and early childhood. The ride was a cold one, and the Bishop, with the kindness of a father, gathered a wrap around her, drawing her close to him to protect her from the cold. She had not brains enough to rightly interpret the good old Bishop, old enough to be her grandfather, and attributed as unholy a fatherly act. The result was, the Bishop was hurled from his high position, presumably on the verdict of a hysterical woman, but in reality was a martyr to partisan hate in the ranks of his own profession. At that time we were connected with The Evening Mirror, which was under the editorial supervision of General George P. Morris and N. P. Willis. An editorial comment on the case by Mr. Willis attracted marked atention of the public. Mr. Willis took the position that when a woman was assaulted, the fault was in a great measure her own, unless the man was insane from disease or drink, or the victim was under the influence of some narcotic. The clear, sharp look of a virtuous woman's eye, and her conduct at that time, would cry halt to the boldest libertine, and make him slip away like a whipped cur. A woman may be physically weak, but, clothed in virtue, she is armed with a spiritual power stronger than a coat of mail- In this, she is her own best protector.

We have no wish to pre-judge the case of Father Kellet, brought almost to the point of death by the murderous attack of one who claimed to believe he was vindicating family honor. The question is one of veracity between a clergyman, loved and respected by all who knew him, and whose life, so far as is known has been comparatively blameless, and a woman, whose story is so improbable, so unsupported by proof, as to create the supposition that she might have been under the influence of hysteria and sought to avenge herself for a fancied wrong.

The popular idea of hysteria is that, under its influence, a woman laughs, and cries, and screams, and throws herself about, without any physical or mental control. But the physician knows that the most dangerous form of hysteria is when there is no excitement at all, but a kind of insanity, if we may so call it, but which comes distinctly under this head, where a woman will tell, and really believe, stories which have not a particle of basis in truth. In this condition of mind she will feign paralysis, and not move from her bed for months or years. She will even mutilate herself and arrange her surroundings so as to leave the impression a crime has been committed. A careful scientific examination of these cases will, however, generally lead to detection.

A case is reported during the Second Empire, under Napoleon III., where the Duke de Grammont, the Premier of the Empire, was arrested and tried for an assault on a young girl. The girl was absent from home some days. On her return she stated that a man, giving an accurate description of the Duke, in a country place, seized her and put her in a carriage, which, from description, was like that of the Duke's, and carried her to a villa, which corresponded to that occasionally occupied by him, and there accomplished his purpose. Her account was minute that the Premier was arrested, and only cleared from the crime when it was shown by medical testimony that no assault had been made. Testimony was brought at a later day to show where she had really passed her time.

Prof. Cæsar Lombroso, a distinguished authority on criminal anthropology, in his discussion of "The Female Offender," says regarding hysterical offenders:

"Many women accuse their servants of theft, either to enjoy their disgrace and have them put into prison, or out of feminine vanity or hatred. The most common form of calumny is an accusation often brought against a public magistrate, or a father even, but more frequently still against a priest or a doctor. Usually the accusation is so absurd that it cannot be believed; but often it succeeds, and the means adopted for making it consist almost always of letters, annonymous or otherwise."

Dr. Lombroso cites several instances in

which priests were accused by women suffering from hysteria, describing the profound impression made by the statements of the accusing women and the trials of the accused.

Continuing his discussion, Dr. Lombroso says: "The feature, however, which distinguishes hysterical women from all others is the intensity of their mania for calumny and the success with which they apply it. The reason is simple. Women have less strength and less capacity than men for deeds of violence, and are consequently more inclined to crystalize their bad impulses into calumny. They profess and proclaim the false with the same tenacity as an honest person will affirm the true, especially as women, like children, are less impressed with the sense of truth and more easily disregard it.

"Moreover, when hysterical they are possessed by their own lie, which presents itself to their minds with a force of conviction greater than truth can bring; and they are subject, besides, to that species of exaltation which the hypnotized experience at every stage, and whence suggestion derives its overmastering force. Finally, as Schule says, 'they have such an unbridled fancy that truth and falsehood, facts and desires, are all one, all equally true to them, and they consequently often misrepresent in perfectly good faith.'"

The most frequent victims of hysterical women are the clergy and the physician, who are often accused of acts of which they are entirely innocent, the simple attention of kindness or necessary professional work, without a thought of evil, being misinterpreted through a purient or diseased imagination, and told from one to another, to the detriment of the reputation of the innocent victim. Cases of this form of hysteria are more common than is generally believed. It is a disease, and should be treated as such, not only in society, but in the court-rooms, where a man's character, or even life, may hang in the balance, and condemnation should only follow the most possive proof of guilt.

Mark Twain and the Osteopaths.

The New York Med. Journal says that our humorous friend, Mark Twain, whom we all appreciate, in his amusing speech at Albany in support of the claims of osteopaths to legislative recognition, entirely misses the point at issue. He pleads for the right to experimeut with his own body to his heart's content, by which he seems to mean to let others experiment with it. But this bill claims more than the right to gratify him and those who agree with him. It aims to confer State recognition upon a body of persons professing to be what they are not, namely, properly, adequately, and scientifically educated, and qualified to deal with diseases in all its aspects and relations not only to the individual, but to the community also; for, as it happens, these two aspects can never be entirely separated.

Mark Twain may believe nickel to be as good in every respect as silver, and he has a perfect right to consider it so if he pleases. and even to label his own property in nickel with the word "silver"; but would he seriously (if he ever does anything seriously) uphold the propriety of stamping some one else's nickel with a sterling mark that should authoritatively proclaim it silver in the name of the government? The attempted parallelism between religious and medical liberty is not to the point. A man's religious convictions concern no one but himself; they are, moreover, matters of opinion and faith, and are not, and cannot be, matters of certainty and knowledge—for the most positive conviction is not knowledge. That alone is knowledge which is susceptible of demonstration, not only to one's own satisfaction, but by logical processes to the logical faculty in others also. Neither is his appeal to the legal status of the homœopathic and eclectic schools of medicine any more to the point; for, while therapeutic dogmas may be in the same category as religious convictions in relation to this question, therapeutics is by no means the whole of medicine. The homeopathic and eclectic schools of medicine, of the State recognition accorded to which Mark Twain made such a point, at least train their alumni in the actual basal sciences of anatomy, physiology, and pathology, and in all their subsidiary branches of knowledge, upon acquaintance with which depends the capacity to distinguish one disease from another and to cooperate in stamping out, or at least preventing the further spread of, communicable and preventable disease. This aspect of disease is not of individual, but of collective import; and, however much the non-sectarian, the homeopath,and the eclectic may differ in regard to the more individual, and relatively less important, matter of treatment, they are at least possessed in common of the same scientific knowledge, and use the same available methods, for the protection of the community against the injuries that might accrue to its individual members from a person sick with a transmissible disease. It concerns no one but the patient(and the immediate friends,with whom he may be left to fight the question out) that he chooses to expect curative results from methods that some, perhaps the

majority, of competent judges consider lacking in reasonable support. But it concerns the entire community that the man called in to a case af sickness should be so trained as to be competent to recognize the difference between a simple sore throat and diphtheria, or between a pustular skin eruption and small-pox. It may be true that it is the inalienable right of any man to experiment on himself,or to make a fool of himself in any way that he pleases; but that right dogs not give him the right also to imperil the welfare, and perhaps even the life, of all other persons with whom he may be unavoidably thrown into contact. A man whose house is his own has an inalienable right to do with it as he chooses. He has a right to burn it down to the ground if he likes; and so long as it is so situated that he does not thereby endanger the persons or properties of other people (as, for instance, if it is situated a mile or so from any other building) and does not, moreover, endeavor to defraud the insurance companies, probably no one would attempt to interfere with him. But let him try to burn down his house which is one of a block, and he would promptly and rightly be interfered with; not because his theoretical right to do as he chooses with his own is disputed, but because by so doing he would endanger the property of others.

The principles involved in these considerations apply with even greater force in the case of the other and yet more dangerous fanatical craze of the day, "Christian Science"—at which, by the way, Mark Twain himself had his little jibe not very long ago.

Literary men seem of late to be specially attracted by these fads. First, it was the late Harold Frederick and Christian Science; now, Mark Twain and Osteopathy—or is it just possible that Mark has suddenly remembered the Innocence Abroad, and is putting his own quaint conceits into practice on the community at large and the medical profession in particular?

Recent Views Concerning the Genesis of Carcinoma.

The Journal of the American Medical Association says that Ribbert's opinion as to the early participation of the underlying connective tissue in the development of carcinoma have been the subject of a severe arraignment by Lohmer. For a considerable period, chiefly through the work of Thiersch and Waldeyer, the origin as well as the further growth of carcinoma was held to be directly due to the proliferation of the epithelium into the deeper tissues. Ribbert and his pupils diverged from this conception in that they traced the origin of the tumor to a disconnection of the epithelial cells from their associates by processes in the subepithelial connective tissue; following such dislocations, the loosened cells proliferated to form a tumor. Such severances are, according to Ribbert, produced by the growth of the papillæ of the corium so that the interpapillary epithelial pegs become correspondingly drawn out and ultimately separated, and by the pushing outward of the epithelium *en masse* by the increased amount of tissue in the corium.

There is no doubt that Ribbert's theories have been of great service in stimulating study of the dynamics of the process; nor is there any question but that they minimize, to insignificance, the important change in the epithelium whereby the cells proliferate and undergo the marked morphologic alterations that Hauser and others believe to be visible signs of altered biological conditions.

Lohmer. in a careful study of serial sections of eight carcinomas of the lip, of carcinomas that originated in sebaceous glands and hair folicles, in the mammary glands, penis, forehead, nose, tongue, pancreas, and different parts of the gastro-intestinal tract, has failed entirely to find adequate histologic evidence to support the views of Ribbert. He was able to prove that certain cases originated solely by the proliferation of the epithelium inward, that elongation of the interpapillary epithelium in many cases was absent, that on the border of glandular carcinomas,the new glands are produced by the proliferation of pre-existing glands, and, what is still more interesting, he was able to find in some carcinomas that two or more entirely independent foci of proliferation were present. He is forced to the conclusion that we must return to the former views of Thiersch and Waldeyer, that the multiplication of the epithelial cells is alone responsible for these growths.

The reasons for the increased proliferative energy of the cells whose end product is a tumor have been theoretically assumed. by Brosch, to be due to a double stimulus. He believes that the initiatory changes are reparative in nature, and that when these are unable to restore the damaged parts the added energy causes them to multiply still further and to produce such an amount of new tissue that tumors are formed. He distinguishes two forms of proliferation, that called forth in the response of the tissues to injury—especially teleologic—and such as occurs in tumors. The proliferation of cells in consequence of physiologic waste

and wear, he would designate by the name regeneration. Upon this assumption he has made careful re-examination of Lowenthal's tables and finds that in many cases injury to parts in which reparative processes were already commenced has caused tumors; the second injury has been sufficient to supply the stimulus necessary to cause proliferation that far oversteps the requirements. Many cases of carcinama that develop in the cicatrices of burns belong to this category. In some cases in which a positive history of previous trauma was lacking, the defect was filled by a careful inquiry into the occupation and habits of the individual. He quite correctly calls attention to the impossibility of obtaining positive information about the traumatic injuries to the surface of the gastro-intestinal canal—situations where trivial harm is fully as important as extensive injuries upon the outer surface.

There is much that is interesesting and attractive about the theoretical axiom erected by Brosch of trauma-proliferation, trauma-tumor, and one of the most valuable supports to this view is afforded by the occurrence of malignant growths following trauma of benign tumors. He attributes the repeated failure of previous investigators to produce tumors by implantation experiments to the absence of certain factors in the causal chair, and to the necessity of experimentation upon a productive process that has already been established. Upon this basis he bruised the skin of the back of a guinea-pig and, after a granulating wound had formed, rubbed it at intervals with a solution of paraffin in xylol; after some weeks a very characteristic ulcer was produced, resembling the cerebrel convolutions in miniature; the elevations in the floor of the ulcer were caused by an atypical epithelial growth that in all respects resembled an early carcinoma. The experiments have not as yet been conducted to the end that regional and general metastatic growths are reported. It will be noted that these two important contributions to the subject of tumor genesis do not necessarily conflict with the parasite theories of tumors.

The Practical as Distinguished from the So-Called Scientific Medical Education.

According to Medicine the problem of pedagogics that goes to the very foundation of educational methods is that one dealing with the practical as against the theoretical. This question as applied to medical education has its counterpart in the entire range of education. The system of medical education prevalent in the first three-quarters of the past century was almost wholly didactic and theoretical. This has been criticised, but in view of the different prevailing conditions it is difficult to see how it could have been otherwise. There were few hospitals, dispensaries were limited, and clinical teaching,at least as it is now understood was scarcely practicable in this country. Laboratories also were unknown, as there was nothing excepting chemistry that could be profitably taught in this way. The apprentice system was in vogue, each student working with the preceptor, seeing his cases, and often acquiring in that way a wide practical experience in the observation and treatment of the sick.

Today conditions have greatly altered the scope of the medical instruction. The enormous increase of highly technical methods of clinical investigation have necessitated the establishment of laboratories for their presentation.

Large hospitals have made it possible to make demonstrations upon sick people to show operations, and to a limited extent bring the students in actual contact, though to a less degree than is desirable, with sick patients. It will thus be seen that there has been a tendency of late years to accentuate the practical as against the theoretical side of our science, so far as instruction is given in the schools. Under the old apprentice system the preceptor taught the practical application, and the student came up for a couple of short courses at the college to obtain that theoretical groundwork which was then supposed to be essential in the development of a good practitioner.

The question has of late been raised as to whether we are not going too far in emphasizing the practical side of a medical education as opposed to the theoretical. Some very able teachers contend that the so-called fundamental branches of medicine, such as physiology, anatomy, chemistry, and biology, and possibly bacteriology, should be pursued in an atmosphere in which these subjects are treated as pure science apart from their application. There is much to be said in favor of this view. and there is no question but that the student who comes to the practical application of these principles at the bedside will use them more efficiently if they have been taught him as pure science.

A recent utterance upon this subject by Dr. Russell H. Chittendon, of the Sheffield Scientific School of Yale University, is quite to the point and of as much value in medical education as in the training of those who devote attention to mechanical pursuits. He says: "There can be no question that in any suitable college course, in mechanical engineering, for example, there should be a judicious commingling of the

theoretical and practical, but the shop, laboratory, and drawing-room work should be mainly for the elucidation of the theoretical, and not as an end in itself. Given a young man of broad knowledge, with a thorough conception of the principles and laws of physics, mechanics, hydraulics, etc., and he will soon adjust himself to the environment of his professional work and eventually rise to a plane far beyond that of a man whose training has been purely technical. If this is so, then such a method of education is to be recommended as more truly practical. I am told by competent engineers, and the statement coincides with my own views, that it is very questionable if the student of engineering derives as much real advantage from the workshop method of instruction as he would gain by expending the time in the study of scientific principles; that the detailed knowledge of the practical application of principles is best obtained by the young man in the shops themselves after his college course, and although he may at first be handicapped, he will quickly adjust himself to the environment and eventually make a far more competent engineer from his broader knowledge of scientific facts and principles. The main object of the practical college course should be to provide a liberal education along various scientific lines, and yet to afford such facilities in certain directions that the student may acquire a proficiency sufficient to fit him for some professional work, or at least to pave the way for further development along some special line."

The Influence of Syphilis upon the Mortality of the Life-Insured.

The Journal of the A. M. A. says that the opinion that syphilis plays an important part in the production of chronic diseases of the internal organs, largely abandoned through the influence of Hunter, came to the fore once more through the work of Virchow in 1858, "On the Nature of Constitutional Syphilitic Affections." Since then the importance of syphilis has become recognized more and more. Specific diseases of the bones, the liver, and other organs, have been studied carefully. Heubner's work in 1874, "On the Luetic Diseases of the Cerebral Arteries," has been of signal value, because it laid the foundation for the study of syphilitic disease of the vessels in general and the various pathological conditions resulting therefrom in the brain, the heart, and the large vessels. We know now only too well that syphilitic meningitis and cerebral gummas, softening of the brain, and coronary disease may develop years after the infection. General paresis, arterio-sclerosis and aneurysm are also regarded as having often a syphilitic basis, general paresis in the opinion of many being always a luetic result. In few diseases has the practical value of pathological anatomy received better illustration than in the case of syphilis. Deprived of the aid obtainable from the demonstration in a suspected lesion of the specific etiologic agent, investigators have been forced to rely upon the character of the anatomical changes in order to differentiate syphilitic from other and often strikingly similar lesions. And it is not impossible that on account of the natural limitations of this method the knowledge of luetic manifestation may have suffered. Nevertheless, a mass of information has accumulated and by following certain broad lines of inquiry it is generally possible to reach fairly definite conclusions in regard to some of the questions here broached.

Thus Runeberg, of Helsingfors, studied the influence of syphilis upon the death-rate of the insured in a company whose applications, death-certificates, etc., he could use for this purpose; information was secured also from the physicians and the relatives, especially in cases of death from general paralysis. Between 1875 and 1897 there were 734 deaths, 11.4 per cent. of which—or 84—are referred to syphilis, 21.3 per cent. to tuberculosis, and 10 per cent. to pneumonia. There were 22 general paralytics among the 84 cases refered to syphilis, and in 16 of these a definite history of syphilic infection was obtained; 31 of the 84 succumbed to heart disease; 21 to brain and cord diseases; and 3 to chronic nephritis, etc. In most of these cases syphilitic infection could be traced directly. In 69 cases the period between infection and death averaged 20.2 years, the average age of the whole 84 being 53.4 years, and the average time between the issuance of the policy and death 8.1 years. The same company, during the period of 1874 till 1895, accepted 11,359 applicants; of these 619 acknowledged syphilis, and the deaths of this group were 78, or 12.6 per cent., while of the remainder, 656, or 6.1 per cent., died. Runeberg is of the opinion that heart disease, hemorrhage into the brain, and cerebral softening in persons under 50 without distinct specific history should be placed at the door of syphilis. These figures, although small, throw a strong light upon syhpilis as an etiologic factor in fatal diseases of the vital organs. There is no question in regard to accuracy and careful handling of the figures. The articles also contain much of interest to the experts in insurance.

Need of Endowment for Scientific Research and Teaching.

The Medical Record says that no medical man will be found bold enough to controvert the assertion that the greatest aid to the advancement of science and to the propagation of a more general knowledge that now obtains among the medical profession of bacteriological research would be the establishment of properly equipped laboratories in connection with all the large hospitals of this country. The chief reason why scientific men of America have lagged behind in original research work has been the want of opportunity of pursuing the same as compared with men of the European continent. Dr. St. John Rossa gave voice to this need a short time ago, and now Sir Michæl Foster, in the January issue of the Nineteenth Century, utters an almost identical complaint as regards the shortcomings of the large hospitals of London in this respect. Sir Micæl Foster says: "The phenomena of disease being phenomena of living beings present themselves, in most if not in all cases, as problems, as mixed problems of physics, chemistry, and biology, to be grappled with by the physicist, the chemist, and the biologist. The analysis to be adequate must be carried out by means of adequate appliances. The days when a test tube, a spirit lamp, and an imperfect microscope supplied all the equipment needed for such an analysis have long passed away. Such an examination as the present state of science makes imperative can no longer be conducted in a corner behind a screen. It is to-day absolutely necessary that for the carrying out of the exact and complete analysis of the phenomena of disease, demanded alike in the interests of the individual and for the well-being of mankind, each hospital should be provided with laboratories, clinical laboratories fully equipped with all the needed appliances of science. And the complaint which I am now making narrows itself down to this, that in spite of all which has recently been done, our great hospitals in London are still very deficient in such an equipment. I venture to assert that in this respect our London hospitals in general are both absolutely behind hand relatively in the rear of hospitals, not only in other countries but even in our own provinces. During a recent stay in the United States and in Canada I was told, not once only but again and again, that in the experiences of their medical graduates visiting London, while our ordinary medical teaching—the teaching up to graduation—is unsurpassed in excellence, our general hospitals are of little use to the graduate, and that the special hospitals do not supply him with what he needs." The real use of a post-graduate course is not, as many seem to imagine, to learn what should have been learned before graduation, or even to polish and place the coping-stone on the edifice of medical knowledge, but, as Sir Michæl Foster truly says: "The post-graduate study, which alone calls for strenuous support, is that study which fits the student for the task of inquiring after new truth, of grappling not with the known but the unknown." Until that time arrives when America either by private generosity or by the help of the State shall have established laboratories commensurate with the size and wealth of the country, will she be in a position to compete on equal terms with the men of science of Europe. That such a time is advancing with rapid steps we feel assured, and also look forward to the result with complete confidence.

What shall we do with the Quack?

According to the Vermont Medical Monthly, Burlington has always been a favorite stamping ground for the medical quack. Perennially some of their number have blossomed and filled the pure Vermont air with their fragrance. Their effulgence has only been equalled by their ridiculous claims and assertions; and, with faultless attire and a liberal supply of what at least passes for diamonds, they have deigned to bless our community and demonstrate their charitable mission. With saintly voice they have called unto the people through their mercenary but ever ready ally, the daily newspaper, and a large number of a certain class of people have flocked to their trysting place like sheep to the slaughter. The specialty of these medical missionaries has been relieving *enlargement of the purse* and their success in this line has certainly been miraculous. If the purse was small, complete extirpation has been the treatment, while for larger growths of the same character careful but thorough enucleration has sufficed.

Their magnetic influence has done wonders in attracting coin of the realm, and during the attracting process their patients have had the fun of being touched—to the limit.

The late lamented Flower loved Vermont. The verdancy of her hills as well as the people he came in contact with always touched him, and to show his emotion he always returned the touch. Flower invariably took his vacation in Vermont, as it was here that he had his easiest time, and met the easiest people. Nowhere else could

he find the sheep he was looking for in the same quantities, just ready and longing to be fleeced. He sheared full well, but those who followed him always found as good a flock. Even to-day Burlington is being edified by such a shearing process, and, judging from all accounts, the God that tempers the wind to the shorn lamb will have his hands full for some time to come.

The question has been asked by regular and honest physicians time and time again, what shall we do when some seventh son of a gun of a seventh son descends upon the community and deliberately robs the weak-minded and simple?

Do, brethren, do? Do nothing, but laugh in your sleeve. Any effort on your part to expose an imposter will only be hailed with derision by those who later on will whimper and cry. Let them find out for themselves, and like the baby who cried for the wasp, they will know lots more afterwards.

As a prominet physician said to the writer a few days ago, if the medical profession, with its years of scientific research, its real progress in the prevention and cure of disease, and its high motives, cannot successfully compete with the quack and imposter, it had better acknowledge defeat and close its existence.

But it can; and time will solve the problem, or rather permit the problem to solve itself just as it has in Flower's case—by voluntary elimination.

Leprosaria in the United States.

Late statistical studies show that the number of lepers in the United States, while not considerable, is still sufficient to make them deserving of some consideration, says Medicine. To brand an individual as a leper is to make him an outcast; modern society in this respect not differing from the middle ages. To state that one has consumption or syphilis will not alter his social status, but to say that he has leprosy is to put him in the same category with small pox. Leprosy is not nearly as contagious as syphilis, and is probably not so much so nor as rapidly fatal as consumption. All are agreed that segregation as a means of stamping out leprosy is practically a failure. This has been shown by the experience of Norway, and especially by the efforts of the late Hawaiian government to stamp out leprosy by deporting all the lepers to an inaccessible island. In part the conditions were unfavorable for segregation in the Sandwich Islands, because leprosy is there a domestic malady and is little feared by the natives, and cases of the disease are concealed as long as possible. Competent observes are of the opinion that segregation has been a failure in the islands, so far as stamping out the disease is concerned, there being now as great or even a greater number of lepers than there were twenty-five years ago.

The establishment of leprosaria is not for the purpose of segregating leppers in order that the community may be protected from the ravages of the disease, but rather for the purpose of making these unfortunates comfortable and preserving them from the effects of the social ostracism which is visited upon them because of their unfortunate condition.

It is difficult to say how many lepers there are now in the United States; certainly not less than five hundred, and perhaps a thousand. A few of these are native born, but the most of them are imported from Mexico, Japan and Norway. It is possible that our new possessions may expose us to a greater accession of leprosy, which is an additional reason for considering the care of these unfortunates. The number of lepers in any Stare is scarcely sufficient to justify the erection of a separate institution. Leprosaria should consist of colonies similar to those which have been established for epileptics, in which those who are able to work could be usefully employed, and such institutions could be made nearly self-sustaining. All that would be required would be the purchase of the ground and the erection of necessary buildings. Residence in such institutions should not be enforced, but those having the disease doubtless would be glad to avail themselves of a comfortable home with medical attendance.

Suicide in Relation to Mental Diseases.

The laity are prone to take very narrow views regarding suicide in an individual case, says Medicine. If questioned, the average layman will state that no one commit suicide while in his right mind. Others again believe that it is an act which marks freedom of the will, and that in all cases it is one severely to be condemned, it being in effect a cowardly retreat from the troubles of this world.

The scientific view puts suicide in the same relation as other acts, the circumstances of a given case determining whether it is due to mental disease or not. It, like other acts, ought to be judged in relation to the individual and environments. It is difficult for the average layman to appreciate the manner in which the expert weighs the acts of the insane; he is always looking for an absolute rule.

For example. the simple act of removing

one's clothing, if done in a bath room for the purpose of cleansing the body, is a perfectly rational act, but if the same act is done in the public square it is certain to attract attention and to raise very strong doubts as to the mental capacity of the person. In the analysis of so simple an act it is apparent that the surroundings are what gives it the quality of an insane act and not the act itself.

Similarly, a belief in witchcraft may be perfectly rational in one who has always believed in demoniacal possession, as many of the unlettered in civilized communities and most barbarians do at the present time. Such a belief in a person with a scientific education, and who for the greater portion of his life has never shown any superstitious tendency, would give strong evidence of mental change. In the same way the act of suicide is to be judged in relation to the previous history, the individual environment, and the mental condition at the time the act was committed. This recognizes that there may be perfectly adequate and rational motives impelling one to self-destruction, though as a matter of fact in the majority of instances there is a substratum of mental instability in which the judgment is somewhat warped.

Arnold Heller, in the Minchener Medicinische Wochenscrift of November 27, 1900, gives an analysis of 300 post-mortem examinations made upon suicides. Definite signs of mental disease were found in 15 per cent of the cases, but in nearly one-half it was found that the individuals were in the unrecognized stages of the acute infectious disorders, the menstrual epoch, or pregnancy, or other conditions, which for the time being altered the judgment and rendered them incapable of exercising sound judgment. His studies accentuate the importance of a carefully conducted autopsy in every case of suicide for the light which it throws upon the motives which lead the individual to the commission of the act.

Preventive Medicine.

Preventive medicine is now firmly established upon a true scientific basis, due to the great advances made in laboratory inquiry into the causation of disease, says the Medical Fortnightly.

The prolonged, patient investigation by physical, chemical and bacteriological methods, together with the concurrent perfection of more exact clinical observations, has given to preventive medicine a position in the great realm of the science of medicine never before obtained in its history. The accumulated empiricism of centuries is fast disappearing under the scientific scrutiny of the modern physician. Especially is this true in regard to the infectious diseases, many of which have within recent years, had their disease-producing organisms defined and verified by reliable observers. As a result, both the physician and the surgeon depend upon the bacteriologist to aid them in diagnosis; they call upon him to say what is the disease process they are confronting, in order that they may meet the indications for treatment which such social knowledge can and does give them. Definite knowledge of these micro-organisms also gives to the practitioner information that enables him to announce the appearance of the specific infectious diseases which in epidemic form, create such sad havoc in communities. In this special feature of the great value of bacteriology alone, there is an inestimable power for good from a pnblic health standpoint,so much so in fact that the time has now come when it is imperative that we recognize the need of such assistance in the daily practice of our profession as a preventive measure.

Forewarned is forearmed, and in medicine, an ounce of prevention is worth a ton of cure.

Much more might be said to emphasize the importance of preventive medicine and of prophylaxis, which would serve to show the firm foundation on which it is built. It is needless to say,that in spite of the heresy which the Homeopathic school is teaching, as shown in the Christmas number of the Homeopathic News, there is belief in the germ theory of disease among broad-minded, well-trained, educated men, and he who barks his feeble protest is like the Arkansas traveler's "yaller dog" barking at the moon. Clinical bacteriology won the greatest advance of the last century, and this,the new century, awaits in glorious anticipation new laurals for great field of medicine.

MISCELLANEOUS.

What is "Neglect?"

That the medical man is always upon duty is a well-established social axiom. Should he be caught napping for a moment the consequences to his professional reputation and welfare may be simply disastrous. The wonder is, considering the thousand and one pitfalls that surround his path, that the average practitioner contrives as a rule to steer a comparatively safe course through the shoals and breakers of a professional career. Who that has borne the care of general practice upon his devoted shoul-

ders does not know the message of utmost urgency that when investigated turns out to be a trifle lighter than the shadowiest air?

Who, again, does not recognize the casual lightly delivered summons that should have been weighty with all the imperious urgency of the dread destroyer?

Who, again does not recognize the casual lightly delivered summons that should have been weighty with all the imperious urgency of the dread destroyer?

Alas and alack! how is the poor overworked healer of mankind to distinguish between the reallty and the shadow. Yet behind his decision lurks the black shadow of an inquest, and—Heaven defend us!—of a possibly gouty and unfriendly coroner. Recently, at Norwich, an unhappy Poor-law medical officer was sent for at 9.30 one morning, but when he visited the house at 4.30 the patient was dead. The coroner, in the absence of the medical man in question, appears to have censured him severely for neglect. More than that, judging from the comments on the case in the Norfolk Standard, the coroner seems to have grossly abused his judicial function by saying that previous charges of neglect had been proved against the same medical man. The latter has written a full and apparently satisfactory explanation of the two incidents thus alluded to: in one he was out of the town, and the patient refused to see his deputy; in the other a wrong address was given. No coroner versed in the conditions of actual medical practice could have taken up what appears to have been a most unfair position with regard to the medical officer in the foregoing case.—*Medical Press and Circular.*

Tonsorial Hygiene.

The question for strict regulations for barber shops has received much attention by sanitarians, but only in a few instances have the health authorities had the moral courage to adopt and enforce rules which must of necessity meet with great opposition and in many instances bring ridicule upon those who promulgated them. In fact, even the medical profession, represented in the American Public Health Association, is not averse to enjoy a little tilt at the expense of its members who perennially hammers away at this subject with commendable persistency. Barbers and hairdressers are public necessities, and the public has a right to insist that their work be performed according to sanitary principles. Anyone who patronizes a barber whose establishment is open to all-comers runs great risk of becoming infected with diseases from the razor, shaving-brush, scissors, clippers, comb, or hair-brush having been used previously on a sick or convalescent person, especially those suffering from diseases of the skin or scalp. Barbers and hair-dressers should be required to wash their hands with soap and use a nail-brush immediately after attending to a customer, the razor, clipper or scissors should be dipped in boiling water or a disinfecting solution, while the use of the shaving-brush should be entirely abolished and wads of wool-cotton substituted. To the general practitioner the necessity of such restrictions is self-evident, but the general public needs instruction. Such instruction, however, is slow and ineffective unless obligatory rules are enacted, making it a sort of compulsory education. It is stated by a medical authority, who has made this sublect one of his life-objects, that he once treated a man who was covered with specific eruptions, and that the patient went from the doctor's office directly to the barber. As this also happened to be the doctor's barber, the lightning struck home.—*Indian Med. Record.*

Treatment of Pneumonia.

A. H.W. Ayling (Brit. Med. Jour., July 25th, 1898) recommends strongly the use of tincture of digitalis combined with tincture of ferric chloride in the treatment of pneumonia.

H. W. King (Brit. Med. Jour., Nov. 12, 1898) has had good results from the treatment of a case of Pneumonia of the apex by large doses of the tincture of ferric chloride.

W. C, Sebring (Med. Rec., April 22d, 1898) used salicylic acid in treating 100 cases of pneumonia, giving 8 to 10 gr. every two hours. But one death occurred, the symptoms were much improved, and the course of the disease shortened; he believes that the remedy is practically a specific,

G. Stoker (Lancet, May 13th, 1899) reports a case of acute pneumonia, in which he used continuous inhalations of oxygen. He directs attention to the necessity of using an apparatus with a gas bag, in order to control the pressure and the amount of oxygen used, and to supply the gas properly warmed to the patient.—*Indian Med. Gazette.*

A small girl of three years suddenly burst out crying at the dinner-table. "Why, Ethel," said her mother, "what is the trouble?" "Oh," whined Ethel, "my teeth stepped on my tongue."

Operations on Diabetics.

It is a generally accepted view that surgical operations on diabetic subjects are attended by so much more than ordinary risk that, under ordinary circumstances, they are best avoided. In the abstract, no doubt, this view is correct, but there are circumstances and cases in which the objection does not hold good. No surgeon would refuse to operate for instance, on a diabetic subject who happened to have a strangulated hernia or other form of acute intestinal obstruction. In general, when non-intervention would entail inevitable death it is the surgeon's duty to shut his eyes to the diabetic complication and to operate. Apart from these operations of urgency the advance of medical science renders it possible to operate on diabetic subjects with a fair prospect of a happy issue, provided that proper precautions are taken to restrict the quantity of sugar in the system. The question came up for discussion the other evening at the Royal Medical and Chirurgical Society on a paper by Mr. Barker, who was enabled to relate two very successful cases of intestinal surgery in diabetic subjects showing that even under the most unfavorable circumstances surgical intervention in such patients is not neccessarily a forlorn hope. From the point of view of surgical risk diabetics may be divided into two categories. First of all the presence of sugar in the urine is a symptom the significance whereof varies greatly according to the age of the patient. In an elderly person of full habit it hardly constitutes a contraindication whereas in a young person diabetes runs a much more rapid and fatal course. Looking at the question from another point of view diabetics may be divided into two classes, one in which the sugar is of purely alimentary orgin, in which a proper supervision of the diet will suffice to reduce the sugar in the urine to negligible proportions. A glycosuric person in whom the excretion of sugar can thus be controlled may, for surgical purposes, he regarded as one of average resistance and dealt with accordingly. There are other cases however, cases of true diabetes, in which the sugar is only in part derived from the carbohydrates taken as food, a variable proportion thereof being of tissue disintegration. In these, diet, however strict, does not remove the sugar from the urine, and the gravity of the prognosis is proportionately grave. Obviously it is for the surgeon to ascertain as far as possible into which category his diabetic patients fall, because in the latter class even the most trifling surgical operation may be attended by the most serious risk of life. The ease with which trifling traumatisms determine grave constitutional disturbance in the diabetic subjects is extraordinary, as every practitioner knows to his cost. Unfortunately the distinction between the two classes does not work out as satisfactorily in practice as it does in theory. In many, possibly the majority, of instances the cases are on the borderland, and though diet does to some extent diminish the excretion of sugar, there still remains enough to inspire anxiety as to the possible results of surgical intervention. In these cases prudence is the best counsellor, and as a general rule no operation except of the imperative kind should be performed. While medical science enables us to place certain diabetics in a comparatively satisfactory state for operation, it does not divest the presence of sugar of its fell significance especially when observation shows that the sugar is not exclusively of alimentary origin.—*Medical Press and Circular.*

Best Method of Removing Large Stones from Bladder.

The British Medical Journal publishes details of a paper read before the Section of Surgery at the last meeting of the British Medical Association by Mr. S. H. Burton, M.B., F.R.C.S., Surgeon to the Norfolk and Norwich Hospital, on the Best Method of Removing Large Stones from the Bladder. We give the essentials. After narrating the record of a case of very large vesicle calculus recently operated on by him, the speaker pointed out how litholapaxy had gradually replaced lithotomy, so that even in the case of children the former operation was now adopted by most surgeons, and a new operation under the name of perineal lithotrity had been advocated, which might, however, turn out after all to be lateral lithotomy under a new name. The speaker, however, was only concerned with operation for large stones, and he proceeded to discuss the relative advantages of suprapubic lithotomy and perineal lithotrity. The advantages of suprapubic lithotomy were that the bladder could be opened freely and examined fully in an almost bloodless manner, and a stone of any known size extracted with least disturbance to the patient of any operation, and in the case of enlarged prostate, these advantages were accentuated. The disadvantages were that the wound might be long in healing, and that occasionally, probably from faulty stitching, phosphates crushed on the scar reproducing another stone. The advantages of perineal lithotrity were that the bladder wall was not cut, and the neck of the bladder was only incised enough to admit the

finger, and afterwards the lithoclast and the opening into the bladder was dependent. The disadvantages were the frequent instrumentation during the operation and the disturbance of the neck of the bladder by removal of fragments of stone: the bruising and perhaps fatal injury of the bladder mucous membrane by the lithoclast when the bladder was contracted round a large stone: the impossibility of examing the bladder with the finger in the case of a big man with a deep pelvis: and the difficulty, where there was a large prostate, of manipulating the instrument easily, and of removing all the fragments; and lastly, where the kidneys and uterus were diseased, owing to chronic diluting and infective changes, the danger of setting up acute pyelitis and nephritis was increased in proportion to the amount of manipulation. Mr. Burton, therefore, strongly inclined to the opinion that the suprapubic operation was the best one for large stones, and he believed that increased experiences would tend to strengthen that opinion.—*Indian Medical Record.*

Is Sunstroke Legally an Accident.

A short time since it wastadvanced by a contemporary that sunstroke was a disease contracted as often from overheated, badly-ventilated rooms as from the direct rays of the sun. The writer insisted on the view that the affection was a disease, and suggested the term "siriasis." A man recently sued an Accident Insurance Company under his policy, on the ground that sunstroke was of the nature of an accident, but the company pleaded that sunstroke was a disease and not an accident, and that their policy only extended to injury from external, violent, and accidental means. The word accident, in the policy, from the company's point of view, was to be taken as employed in its ordinary sense, that is to say, not according to the usual course of things, so that a result which might ordinarily and naturally flow from the conduct of an injured person could not be said to be accidental even when it might have been impossible to have forseen the consequences. It may certainly be by accident that anyone is exposed to sunstroke, but the conditions under which a man may be affected thereby should be classed, in the opinion of the company, among natural causes and natural phenomena may reasonably be regarded as circumstances pertaining to life which are possible of anticipation and therefore can not be called accidents. The decision of the court was in favor of the plaintiff, but we are not quite satisfied as to the justice of the verdict. Should it be allowed to stand, then frost-bite and chilblains would have to be placed in the category of accidents, nay, even "catching cold" is, in a sense, accidental and might be made the subject of a claim, *quod absurdum est.—Indian Med. Press & Circular.*

The influence of syphilis in the production of alarming disorders of the nervous system is a subject dealt with by Dr. J. L. Steven in a recent lecture. The first case was one of syphilitic hemiplegia with Jacksonian epilepsy in a man, aged forty-six years, probably due to a gummatous affection involving the motor cortex. There were also present gummatous tumors of the scalp. Rapid recovery took place under mercury and iodide of potassium. This case reminds the reviewer of a similar case under his care which pursued a very varying course under anti-syphilitic treatment. Trephining was eventually had recourse to, but unfortunately this patient succumbed and a localized gummatous affection of the meninges and cortex of one Rolandic area was found. The second case was one in which several of the eye muscles were involved and there was severe hemicrania. Complete recovery ensued under treatment with iodide of potassium and mercury. In the third case, of a man, aged forty years, there were motor aphasia and marked paresis and rigidity of the right arm and hand, preceded by severe headache. There was reason to believe the disease to be of syphilitic origin, but no improvement followed anti-syphilitic treatment. The last case occurred in a man, aged thirty-seven years, who had severe and protracted headache with alarming convulsions and mental derangement of undoubted syphilitic origin. The headache and fits were relieved by prolonged mercurial treatment.—*New York Lancet.*

One of the most serviceable preparations before the medical profession to-day is Armour's Extract of Red Bone Marrow, a food product of the highest nutritive value. It is rich in marrow cells, nucliens, hemoglobin and other blood-forming substances, and if given well diluted with cold still or carbonated water, milk or beer is easily retained, and readily assimilated. Such an article is, of course, indicated in all anemic conditions. After surgical operations and loss of blood, from any cause, it is the remedy. Nothing more appropriate could be prescribed for children with marasmus, rachitis, and for those that grow too rapidly.

The Dangers of Boiled Milk.

It is well, no doubt, to educate the public in the importance of avoiding the consumption of raw, *i. e.*, unboiled, milk, but it is also well to bear in mind that boiling does not impart to stale or partially decomposed milk the health-giving properties of freshly drawn milk. Boiling may sterilize milk so far as active, living organisms are concerned, but it does not rid the fluid of the toxins elaborated by them during their brief spell of life. The irritating effects sometimes observed to follow the ingestion of boiled milk are due, in part at any rate, to the presence of these products. There are, however, other changes to which boiled milk is liable. If raw milk be allowed to stand it turns sour, and the change is accompanied by the production of a certain quantity of gas. If milk which has been sterilized by Pasteurisation or by heating to 70 deg. C. be subjected to the same treatment, the casein is precipitated as curds mixed with bubbles of gas, with a distinctly putrefactive odor. If the milk be boiled before being allowed to stand the curds fall to the bottom without the formation of gas, and the albuminoid substances undergo gradual disintegration. In the case of raw milk lactic acid predominates; in Pasteurised milk the ferment is destroyed and replaced by gas-forming organisms, while in boiled milk the bacteria are destroyed and their place is taken by peptonizing organisms which elaborate products often of a toxic nature. To prevent this deleterious change it is recommended, when boiled milk is not for immediate consumption, a small quantity of raw milk should be added thereto.—*Med. Press and Circular.*

The Opium Controversy.

Mr. Rudyard Kipling is reported to regard opium as the "friend" and "mainstay" of millions in India, and the publication of this view has caused the old controversy in regard to the use and abuse of opium to be reopened with even more acerbity than before. One medical man in stating his views refers to a detail which appears to have escaped general notice, viz., that the high officials in the Japanese government have an intense antipathy to the abuse of opium. To such an extent is this feeling carried that, during the Chino-Japanese war, a number of Japanese coolies employed in Shantung, who had contracted the opium habit, were brought before the Japanese commander. This officer, rather than allow these coolies to return to Japan, lined them up and had them shot. In connection with this fact it may be remembered that when Count Ito, the man who made modern Japan, was in Pekin a few months ago he told the Chinese authorities that in his opinion China would never make any headway until opium was placed on the list of poisons and its sale restricted, as is done in England and other countries. Most of those who are opposed to Kipling's views on opium have found his point that opium eaters are free from malarial fever a difficult one to deal with, the general tenor of the majority of the replies traversing this statement being that the remedy is worse than the disease. When diarrhea supervenes in an opium eater the helplessness of medicine is well known, and the relatives, we are told, immediately order a coffin.

Local Anæsthesia in Hæmorrhoidal Operations and all Varieties of Minor Surgical Work.*

Since there are so many people suffering more or less with hæmorrhoids, and since orificial operations along that line have been performed only under general anæsthesia, we desire to call attention to the fact that we have formulated a method by which hæmorrhoidal operations are painlessly performed without the aid of general anæsthesia. The operations are rendered painless by using the local anæsthetic "Acestoria."

Our method of operating on hemorrhoidal tumors is as follows: First, the patient is instructed to take a cathartic the night before the operation, and an enema in the morning. With a saturated solution of boracic acid thoroughly cleanse the rectum, using a syringe or otherwise, and then immediately inject every tumor in sight with "Acestoria" until each tumor is not sensitive to the prick of the needle. Sometimes it is best to use the bivalve speculum before, sometimes after injection, and sometimes not at all. It depends upon the condition and location of the piles.

With hemorrhoidal forceps, or Pean's artery forceps, pick up each tumor at its center, and turn it out.

We generally use the clamp method when possible. Use Kelsey's or Pratt's clamp. After turning the tumors slightly outward with the forceps which were left hanging to them, each by turn is clamped at its base.

Then with a straight needle put in two or more stitches, as may be needed, back of clamp.

Remove clamp and cut tumor with

*Dr. O. W. Green in The Medical Times and Register.

straight scissors through the white line made by the middle blade of the clamp. There will be no hemorrhage if this line is followed. The stitches are now tied. Each tumor is thus treated. Then with hydrozone and hot water, one part of the former to five of the latter, syrings or spray the field of operation thoroughly.

The object of the hydrozone is two-fold: It is the safest and best germicide and hemostatic we have yet used, and we have tried many. Not being a poison, and depending upon the oxygen it contains for its action, renders it safe under all circumstances, both externally and internally.

As a dressing we have several times used nothing, simply cleansing with hot water and hydrozone.

An ideal dressing is ordinary sterilized gauze moistened with glycozone. Glycozone is anhydrous glycerine saturated with ozone, a powerful germicide and promoter of healthy granulation.

To prevent pain usually caused by the prick of the hypodermic needle, touch the point chosen for insertion with a glass pointed rod, dipped into 95 per cent. carbolic acid.

To anæsthetize the ear and stop ear-ache, incline the patient's head to one side and drop into the ear about five drops of "Acestoria," or sufficient to fill the external meatus.

Use "Acestoria" hypodermically in all cases where incisions or excisions are to be made, such as operations on ingrowing toe nails, removal of splinters from the flesh, opening boils, abscesses, carbuncles, etc.

Hæmoptysis.

The author divides the varieties of blood-spitting into two large clinical clssses—pure or large hemorrhages, and impure or minor hemorrhages. The conditions to be fulfilled in every form of treatment are to lessen blood-pressure and to increase resistance at the bleeding-point. For while the venous pressure is lower than the arterial, it is a good deal higher than it would be had the total calibre of the venous been greater than that of the arterial vessels, is quite unnecessary and may be harmful. It is, however, of utmost service when the mitral valves become incompetent in consequence of damage to the valves themselves, or dilatation of the cardiac orifices from weakness after diseases, or from failure of a hypertrophy consequent upon aortic regurgitation or renal disease. It may be useful, moreover, before the heart has dilated so as to render the mitral valves incompetent, by lessening the ventricular regurgitation, during diastole, and thus diminishing the amount ot blood which can regurgitate. By its action on the arterioles it also aids in lessening the flow. To get the best results in severe cases, the use of the drug should be associated with rest in bed and massage. In conclusion, he speaks in regard to the dangers of the drug in cases of fatty heart and very high tension. If we have fatty degeneration with normal muscular fibres of the arterioles, the resistance to cardiac contraction will be increased, and the heart, already disabled, will be further embarrassed. In such cases we should simultaneously administer nitrites, such as nitroglycerin, nitro-erythrol or ethyl-nitrite, most commonly given in the form of spirit of nitrous ether. The same precaution should be adopted where the arterial tension is high and the heart is just beginning to fail, and in such cases it may be well to avoid digitalis altogether; but if it is given, the nitrites should accompany it, and great attention should be given to the condition of the bowels and the liver.

The American Army in China.

General Chaffee has decided to quarter the troops of the United States in Sibley tents for the Chinese winter. This course was at first sharply criticised by the commandants of the soldiery of other nations, and the example of the British, Germans, and Japanese, who were housed in deserted Chinese buildings, was pointed to as good examples. But there never were fewer sick men in the American commands, while the German and British hospitals are said to be filled with soldiers. The report goes that the foreign officers have recognized the wisdom of Gen. Chaffee's decision and are borrowing tents from the Americans.—*Medical Record.*

Jno. C. Levis, M.D., West Bridgewater, Pa., says: I have used Celerina in my own case for insomnia. Among all the hypnotic preparations and nerve tonics, it stands justly pre-eminent. Several persons are now using it and report that no preparation has given such permanent and prompt relief. In a general practice of more than half a century, this is perhaps the first public testimony I have offered. Celerina is the very best nerve tonic now hffered to profession, and cannot be too highly recommended. To those wanting a nerve stimulant it will be just the remedy.

John O. Polak, B.S. M.D., Adjunct Professor of Obstetrics, N. Y. Post-Graduate Medical School; Instructor in Obstetrics, Long Island Hospital; Surgeon, Williamsburg Hospital; Chief of Gynæcological Clinic, Polhemus Memorial Clinic, in a paper on "The Clinical Value of the Newer Methods in the Treatment of Puerperal Sepsis," read before Associated Physicians of Long Island, January 27th, 1900, and published in The Post-Graduate, April, 1900, said the following:

Unguentum Credé is the newest and, perhaps, the most reliable antitoxin in pure streptococcic infection. The ointment contains 15 percent of soluble metallic silver (Argentum Credé), and may be thoroughly rubbed into the cleansed skin until it has approximately disappeared. The integument is then no longer black, but only dirty looking. This takes from twenty to twenty-five minutes in a well nourished or youthful skin, and about thirty minutes in an older one. The back, buttocks and loins are the most favorable regions to inunct.

It has been my fortune, during the past few months, to give this preparation a most thorough and varied test in septic conditions; and while it is not a panacea, soluble silver certainly deserves first place among the antitoxins in streptococcic fevers.

Perhaps the most marked instance of its value is shown in the following brief history: Mrs. L., 26, M., 3 ch., was confined by a midwife four weeks before coming under my observation. She developed sepsis during the first week of the puerperium. A physician was called in, who washed out and curetted the uterus. This interference seemed to increase the infection. General stimulative and anti-phlogistic treatment was instituted, but with no result. The temperature kept between 103 and 104 deg. for the next three weeks, when I was asked to see her. At this time the fever was 104⅘, pulse 156, irregular and compressible. The tongue dry and dirty, and the patient presented the general appearance of advanced sepsis. Physical examination revealed an empty uterus, with pus coming from the cervix; the involution was fair for the period of the puerperium. No parametric involvement could be demonstrated. Believing that no local interference would be of any uee, Unguentum Credé was recommended and used in four gram (60 grain) doses every eight hours, and the bowels were moved thoroughly by calomel. Within 48 hours the temperature was reduced to 102, where it remained for two days. The quantity of the inunction was diminished to three grams (45 grains) night and morning. During this time the heart was supported by the hypodermic use of strychnia and nitroglycerin, a most excellent combination in sepsis. After ths fourth day the temperature continued to fall and the patient's general condition to improve, until at the end of ten days recovery was assured.

I mention this case because in the treatment the silver ointment had no cooperation from the surgeon, and deserves whatever credit may be due for the recovery.

In mixed infections of low grade, soluble silver has signally failed; but when the streptococcus could be demonstrated, its remedial value has been most heartily indorsed.

In concluding his paper the author said: I wish to make the following summary of the points to which it is my desire to direct your discussion:

1st. That puerperal sepsis usually begins in one of two forms of endometritis, *i. e.*, putrid or septic. In exceptional cases the infection is direct through the inocculation of lacerations and abrasions with the streptococcus or with the tetanus or diphtheria bacillus.

2d. That while the curette is indispensable to the successful management of putrid endometritis, it is harmful in an empty uterus, such as is commonly found in the septic form.

3d. That all forms of septic infection are benefitted by general stimulation and supportive treatment.

4th. That, of the toxins used, Unguentum Credé has proven its superiority over the antistreptococcic serum.

5th. That blood-washing and the artificial production of a hyperleucocytosis are valuable adjuncts to the routine treatment.

Finally, that hysterectomy post-partum should be limited to those cases in which the sepsis is localized, as a metritis with pyosalpinx, or tubo-ovarian abscess, after the acute symptoms have somewhat subsided, and that most parametric pus collections can be more safely handled by vaginal section.

Chinese Humor.

"A doctor who had mismanaged a case was seized by the family and tied up. In the night he managed to free himself, and escaped by swimming across the river. When he got home, he found his son, who had just begun to study medicine, and said to him:

"Don't be in a hurry with your books; the first and most important thing is to learn to swim."

The Ocular Troubles of Thyroidism.

The value of the thyroid treatment in various morbid conditions must not be allowed to blind us to the fact that its use is not exempt from certain dangers. The ordinary symptoms of the condition known as thyroidism are common knowledge, but to the already extensive list must be added, it appears, certain ocular affections which, according to Dr. Coppez, of Brussels, occur in this connection. He has had under observation five patients, four of them being females, in whom the prolonged ingestion of thyroid gland for obesity determined well-marked optic neuritis. The amblyopia did not supervene until after several months of the treatment, but it then ran a very rapid course, vision being reduced, in the course of from six to eight weeks, to a tenth. In some instances suspension of the treatment sufficed to bring about a subsidence of the lesion, but in others the prolonged administration of tonics and the application of electricity were required to effect a cure. It is worthy of note that these patients presented no other symptom of thyroid intoxication, the toxic influence having apparently been localized in the visual apparatus. Henceforth it will be necessary, in all cases of optic neuritis of obscure origin, to inquire whether the patient has been subjected to thyroid medication.—*Med. Press and Circular.*

Care of Soldiers' Feet.

The Medical Review for September has an interesting note on the use of formalin for keeping soldiers' feet in good condition, and in the treatment of hyperidrosis. Formalin is very slightly toxic, and being volatile it is said to penetrate the skin. Its value as a deodorant for smelling feet was established by Orth in 1896. A German Army Surgeon has recently published his results with formalin. He used solutions of various strengths; the best preparation is a concentrated solution of formalin in water. In marked hyperidrosis this concentrated solution is applied four times in one day to the feet, and the odor usually disappears after the third application, after such application a soldier is fit to take a part in manœuvres for fourteen days, wearing the same woollen socks. If weaker solutions are used the formalin must be the more frequently applied, *e.g.*, a 30 per cent. solution would require six or seven applications. A few drops of formalin solution sprinkled in the boots or the powder on the socks are also useful means of using the drug.—*The Indian Medical Gazette.*

Tropical Dysentery.

Flexner, in the British Medical Journal. believes that the present knowledge of the etiology of dysentery may be summed up as follows: (1) No bacterial species yet described as the cause of dysentery has an especial claim to be regarded as the chief micro-organism concerned with the disease. (2) It is improbable that any bacterial species that is constantly and normally present in the intestine, or in the environs of man, except where the disease prevails in an endemic form, can be regarded as a probable cause of epidemic dysentery. (3) The relations of sporadic to epidemic dysentery are so remote,that it is improbable that the two diseases are produced by the same organic cause. (4) The pathologic action of the amœba coli in many cases of tropical and in certain examples of sporadic dysentery has not been disproved by the discovery of amœbæ in the normal intestine and in diseases other than dysentery. While amœbæ are commonly present and are concerned in the production of the lesions of subacute and chronic dysentery, they have not thus far been shown to be equally connected with the acute dysenteries even in the tropics. In the former varieties bacterial associntion probably has much influence upon the pathologenic powers of the amœbæ.—*Indian Med. Record.*

Tragedy in a Paris Sanatorium.

The "Villa de la Gulle," a sanatorium kept by a Paris doctor in the Route de Versailles, has been the scene of a tragic shooting affair. Among the boarders inhabiting the villa were a Monsieur Henri Bellencontre and Monsieur A. Yanés. The latter was suffering from the persecution mania, and had consulted several physicians, who suggested only quietude and agreeable surroundings, both of which were to be sought in the villa in question. It appears that M. Yanés one evening, while in a restless mood, entered the library where some boarders were reading and chatting. M. Bellencontre rose to bid him good evening and offer his chair, whereupon M. Yanés produced a revolver from his pocket and shot, afterward turning the barrel toward himself and firing.—*M. Record.*

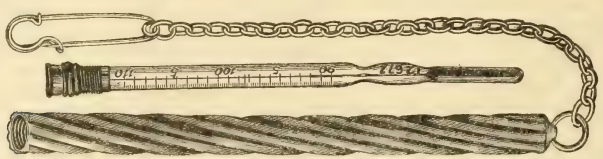
A new medical word is explained in the Polyclinic, viz., "biopsy." A witty Frenchman defined it as "an autopsy on a living subject." It is used to mean a visual examination, like an abdominal exploration operation.

Surgical Sensationalism in the Newspapers.

The International Journal of Surgery says that in their greed to pander to the love of sensationalism that has infected the public mind, the newspapers of the yellow type have seized upon medicine, and especially surgery, as a thrilling theme of discussion. Readers are regaled with descriptions of wonderful operations and miraculous cures, which can successfully compete with the most startling tales of Munchausen. These stories usually have their foundation in the idle and exaggerated gossip of hospital employees and nurses, who are only too ready to be interviewed by the eager penny-a-liner. To the surgeon these alleged reports are a source of serious annoyance, and the unfortunate feature of it all is that he has no real redress. But even in the few instances where the information given is correct, we fail to see what good purpose can be subserved by its publication in a lay journal. The average person who has a morbid craving for this kind of news makes a very bad patient; he is apt to be disputative, critical and suspicious, and to disobey the physician's directions. That "a little knowledge is a dangerous thing" finds a striking illustration in his case. It cannot be too strongly impressed upon the journalistic profession that there is one field of medicine, namely, the prevention of disease, in which it can be of the utmost assistance in the diffusion of knowledge among the public. By educating people to the importance of observing the regulations established by our health-boards the lay-press would become a valued auxiliary to the medical profession, instead of, as now too often, a meddlesome intruder.

Mosquitoes and Yellow Fever.

According to Modern Medicine a commission sent out by the United States government to Havana to study the cause of yellow fever has presented an exceedingly interesting report. Encouraged by the results obtained in the study of the relation of mosquitoes to malarial disease, they made a large number of experiments with them for the purpose of determining, if possible, whether or not they play any important part in the etiology of yellow fever. The evidence presented established clearly that "the mosquito serves as an intermediate host for the parasite of yellow fever." A little more explicitly stated, the conclusion is simply that the mosquito may by biting a yellow fever patient take into its body a considerable number of yellow fever parasites, which may afterward, in the same manner, be communicated to a healthy person, in whose body these minute parasites will grow until all the characteristic phenomena of yellow fever are developed. Several persons were made sick by experimental bites of mosquitoes which had bitten yellow fever patients, and one member of the commission, accidentally bitten while visiting a yellow fever patient, contracted the disease and died. The variety of mosquito which was found to be the vehicle of the disease is that known as *culex fasciatus*. It is important that those who live in tropical or mosquito-infected regions should know these facts, that they may be careful to avoid the bites of these persistent little persecutors which have for so many generations plied their nefarious occupation without arousing suspicion as to its grave significance.



We desire to call attention to the guaranteed half-minute self-registering Clinicol Fever Thermometer with certificate of registration which is offered to the medical profession for $1.00 by the Mellier Drug Company of St. Louis.

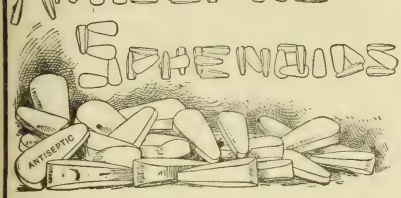
In addition to this fine thermometer, liberal samples of the Tongaline Preparations and Ponca Compound, the uterine alterative, are sent, all by express prepaid.

This fever thermâmeter is the finest instrument made and is enclosed in an antiseptic aluminum case with chain and pin, the usual price of such being from $2.00 to $3.00.

We highly recommend to our readers this offer of the proprietors of the Tongaline Preparations and Ponca Compound and would mention that any physician who finds that the thermometer is not exactly as represented and entirely satisfactory, can receive his money back by returning the thermometer.

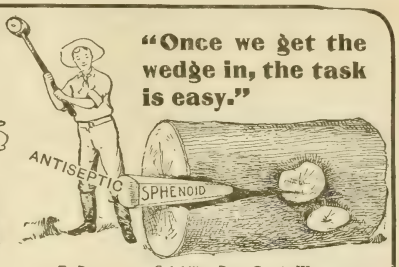
Remittances should be sent direct to the Mellier Drug Compahy, No. 2112 Locust St., St. Louis, Mo.

ANTISEPTIC SPHENOIDS



For Vaginal and Rectal Troubles.

"Once we get the wedge in, the task is easy."



To Demonstrate Solubility, Drop One in Water. It will Disintegrate in Thirty Seconds.

Antiseptic. Astringent. Curative.

One each night, introduced into the vagina well up to the uterus, gives prompt and permanent relief in all forms of Vaginal Catarrhs, whether specific or non-specific. Antiseptic Sphenoids possess the very necessary physical qualities of ready disintegration and solubility, without which success is never assured. For Hemorrhoids and Sphincter Troubles, cover with petrolatum to facilitate insertion.

We feel confident if we can induce you to try Antiseptic Sphenoids, the goal of our ambition is complete and success will reward you for your trouble. **Send for Free Sample and Literature.**

Price, in One-Half Gross Boxes, $1.50, Postage Paid...

McCOY, HOWE CO. MANUFACTURING CHEMISTS, INDIANAPOLIS, INDIANA

Value of Hot Baths in Disorders of the Menopause.

Gottschalk (Sem. Med., June 13, 1900) states that hot saline baths, at a temperature of about 40 deg. C., lasting for about twenty minutes, and taken every evening at bedtime, constituting an excellent means of combating the night attacks of heat and sweating, from which so many women suffer at the time of a natural or post-operative menopause; the favorable effects are usually manifest at the end of the fist week, and 26 to 28 baths are sufficient to cure the trouble altogether.—*Medical Times.*

Twins Born in Different States.

Twins are always setting both Nature and conventionality at defiance. Only recently we told of two twins who managed to be born in different centuries; now the Union and Advertiser, of Rochester, N. Y., tells us that while a lady of Portland, Ore., was travelling on a train toward Spokane, Wash., the other day, she gave birth to twins. The elder, a boy, was born in Oregon, and the other, a girl, in the State of Washington an hour later.—*N. Y. Med. Jour.*

You must be aware that in Herpes Zoster, all so.called ointments, paints etc. are not of the slightest use, and that the disease runs its painful course in spite of treatment internal or external. Having a severe case of Herpes where the chest, back and the arm was affected, and the patient's pain was unbearable, and knowing the value of Ecthol, I ventured to give it a trial. I applied Ecthol on pieces of lint, and strange to relate within 24 hours, the pain had mostly subsided and the pustules had quite a shriveled appearance. This was the third or fourth day of the disease. The patient made a painless recovery thenceforth. I am giving it extensive trials now in all cases where there is any pus.

D. P. SETAFA,
L. M. & S. (Bombay)
111 Girgaum Road,
Chandarnwady,
Bombay, Dec. 23rd. 1900.

"Have you anything to say before sentence is pronounced against youz" asked the judge, The only thing I'm kickin' about," answered the convicted burglar, "is bein' identified by a man that kept his head under the bedclothes the whole time. That's wrong."

Death of a Well-known British Medical Editor.

On Saturday, January 9th, Archibald Hamilton Jacob, B.A., M.D., T.C.D., F.R.C.S.I., died at his residence in Dublin, Ireland. The deceased physician, who was sixty-three years of age, was one of the most widely known and best liked members of the medical profession in Ireland, and had a distinguished career as a practitioner. He took his M.D. degree in 1862, and commenced practice as an ophthalmic surgeon in Dublin, and had for many years occupied the position of professor of opthalmology in the Royal College of Surgeons, Ireland; he was also at the time of his death oculist to the lord-lieutenant of Ireland, besides holding several hospital posts.

Good, however, as was Dr. Jacob's reputation as a practicing physician, his fame as a writer was much more extensive. In 1865 the Medical press of Dublin and the Medical Circular of London were amalgamated, and throughout the thirty-five years intervening from date he has been editor-in-chief and part proprietor of that journal, having succeeded his equally eminent father, Dr. Arthur Jacob, on his retirement.

Dr. Hamilton Jacob,as a writer and reformer, was somewhat of the type of the late Thomas Wakley, the founder of the Lancet, being an uncompromising opponent of all sham and jobbery and an ardent supporter of any measure likely to benefit his profession. At the same time his ideas were in a high degree practical, as evidenced by the beneficial alteration effected through his agency in the Irish poor-law medical service and the ameloration he brought about in the situation of the medical poor-law officers of Ireland.

As a writer Dr. Jacob was terse and to the point, and by his judicious conduct in the editorship of the Medical Press and Circular he brought that journal to quite the front rank of the medical journals of Great Britain. He was also a striking example of a man who was able to combine the arduous work of a large public and private practice with the no less trying duties which must necessarily fall upon the shoulders of an editor of a largely circulated journal. Dr. Jacob's qualities in private life were as estimable as those he exhibited in a public capacity; for those who had the pleasure of a personal acquaintance with h m say that he was one of the most delightful and intellectual of companions, a clever speaker, a charming *raconteur*, a good musician, and that, over and above these gifts, he possessed a warm and generous heart.—*Medical Record.*

The Osteopath Discovers the Spleen.

Another of those great and bloodcurdling discoveries has been found by the enterprising newspaper-writer. This time it comes from Centreville, Iowa, and it consists of a positive cure for tuberculosis by "vibrating spleen." An osteopath, West by name, announces that he has entirely cured cases of tubercular caries of the lumbar spine and of pulmonary tuberculosis by "vibrating the spleen." "Doctor" West, previous to his few weeks' course, at Kirksville, was dramatic and musical critic for a newspaper. He says that his "vibrations" cause the spleen to form large numbers of phagocytes, which thereupon attack and destroy the infection. It will thus be seen that he adopts a plausible rationale, while failing to intelligently connect it with his "vibrations." In closing it should be noted that while the Cincinnati Enquirer gave a large amount of space to the "discovery" in its issue of January 5, the two leading Cleveland papers seem not to have bitten at the yarn.—*Cleveland Journal of Medicine.*

The Dignity of Medical Philanthropy in Russia.

A recent decree of the Czar makes all physicians serving in dispensaries or other institutions receiving the poor gratuitously, and all physicians who give gratuitous instruction to sisters of charity in instutions connected with the Red Cross, officers in the Imperial service with all the privileges appertaining to this rank, and places them under the control of the Minister of the Interior,—*N. Y. Medical Journal*

A Physician's License Revoked for Advertising.

A physician of St. Paul, Minn., has had his license revoked by the State board of medical examiners as a penalty for unprofessional advertising. The courts being without jurisdiction, an attempt is to be made to obtain the Governor's interference. It would be a good thing if medical boards throughout the country would exercise themselves in repressing unprofessional conduct to the fullest extent of their powers.—*N. Y. Med. Jou..*

Many railroads, including the Chicago, Great Western, and the Chicago & Alton and Erie Railroad, have ceased to permit news agents and peddlers upon the trains, as it was found to be a nuisance to the traveling public.

Rockbridge, Va., Alum Water.

That are of Intrinsic Value to the Medical Profession.

Extract from a paper read before the Atlanta Society of Medicine, April 26, 1887, by JOHN S. TODD, M. D., Professor Materia Medica and Therapeutics, Atlanta Medical College, Ga.: Ex-President of Georgia Medical Association; not read in our interest, but in the interest of Science and his profession:

"Some four and a half years since I had, among other cases, one of dysentery, which resist ing all medicatlon, became chronic, and a LARGE ULCER OF THE RECTUM DEVELOPED. I called in consultation a noted surgeon. The patient's condition was one of extreme emaciation; blood and mucus in large quantities were voided about an average of once an hour. The dose of opium had been increased to 3 dr. laudanum in twenty-four hours and ½ gr. morphine twice a day, and still matters grew worse. We decided to inject solution 30 grs. to oz. nit. silver in rectum. The result was a COLLAPSE that nearly proved FATAL. Upon it being suggested later that the operation be repeated, the patient, a young man, said if we and his family insisted, to avoid it HE WOULD COMMIT SUICIDE. Dr. W. S. Armstrong was then called in with me. He suggested an exclusively milk diet, gradual reduction of opium, and ROCKBRIDGE (VA.) IRON AND ALUM WATER. Immediate improvement set in, and in TEN DAYS so great was THE CONSTIPATION that oil and enæmas had to be resorted to to procure an evacuation from the bowels. Since that time I HAVE TREATED SEVERAL CASES EQUALLY AS BAD, WITH SAME HAPPY RESULT, using same diet and medicines, for of all agents for this disease. I consider THE ROCKBRIDGE ALUM AND IRON WATER THE FIRST. It is equally EFFICACIOUS in CHRONIC DIARRHŒA, AS MY RECORDS ATTEST."

DR. TODD, March 21, 1900, writes: I have for 16 years used these GRAND WATERS constantly in my practice with increased and increasing satisfaction, I inclose you article written 3 years ago on opium. "In chronic diarrhœa and dysentery. the milk diet, ROCKBRIDGE ALUM WATER, and small doses of opium given cautiously—very cautiously lest your patient acquire the opium habit—has proved so INVARIABLY SUCCESSFUL with me, that I have COME TO TREAT THESE CASES with CONFIDENCE BORN OF SUCCESS."

DR. HUNTER MCGUIRE, Virginia's great surgeon, says: As an astringent and tonic it is one of the most valuable I have ever used.

DR. S. GAILLARD THOMAS, Professor College of Physicians and Surgeons, N. C.: Most efficient astringent and tonic waters I have ever employed.

Write JAMES A. FRAZIER, Mgr. Receiver, Rockbridge Alum Springs, for Pamphlet.

Somnambulism.

The state commonly recognized as somnabulism is a most interestion one, and one that has been long clothed in a veil of mystery, so far as any definite knowledge of its etiology is concerned. It has been commonly taken for granted that the so-called "sleep-walkers" or somnambulists were persons who had been given the habit by their progenitors, and that it was nothing more nor less than an interesting (and often dangerous) heirloom which had been handed down through families. It seems now in the light of modern neurologic teaching that somnambulism is a symptom of disease, and that the disease which it may symptomize may be of three kinds, viz.: hystero-epilepsy or epilepsy. It does not suprise us to hear that somnambulism may symptomize hysteria, for we are prepared to hear of anything as being related to hysteria, but it is rather surprising to know that sleep-walking may be characteristic of an approaching epileptic seizure. That it is symbolic of this neurosis has been definitely verified, inasmuch as epileptic attacks often occur in these people while they are on one of their midnight prowls. The attention of the profession may well be called to this etiology, as good results follow on rational treatment—for instance, the bromides. By using the bromides in such cases it may often be possible to dispense with the "iron-bar and lock" method of treating somnambulism which has hitherto been so much in vogue.—*Interstate Medical Journal.*

The best intestinal antiseptic in typhoid, diarrhœa, dysentery, &c., is an alcoholic solution of Lander's Eucalyptol, drachm 1, ounce 1; 15 drops in a tablespoonful of milk every 2 hours. In summer complaints of infants it is the remedy par excellence. For the care of the mouth in febrile conditions the above solution with 5 grains of Menthol added to each ounce is invaluable. Ten drops to one-half cupful of water forms an agreeable and highly antiseptic mouth wash. Lander's Eucalyptol is enjoying an excellent reputation as a reliable and non-toxic antiseptic and nervous sedative, and we would strongly recommend physicians to make themselves acquainted with this preparation.

It is estimated that the dense fog in London costs the city from $250,000 to $500,000 daily in the matter of bills for gas and electricity.

Sudden Death after Lumbar Puncture.

Gumprecht (Deutsche Med. Woch., June 14, 1900) says about 15 cases have been reported. He reports 2 other cases. In both there was a cerebral tumor which probably pressed on and obliterated the Sylvian acqueduct, and in nearly all reported cases a cerebral tumor was present, generally in the posterior fossæ. The cause of death seems always to have been an interruption of the normal communication between the cerebral and spinal fluids, so that on the withdrawal of the spinal fluid the hydrostatic equilibrium was disturbed and the respiratory centre injured. This interseperuption may be situated either at the foramen of Majendie or (from direct pressue of the tumor) at the aqueduct of Sylvius. Before the puncture the symptoms have always been those of cerebral pressure, and drawing off the fluid has increased the headache intolerably. In nearly all the cases respiration ceased before the cardiac beats, though in no case was the fatal termination arrested by artificial repiration. It is possible that immediate trephining and puncture of the lateral ventricles might avert death. Post-mortem the cerebropinal canal on the cerebral side of the tumor is generally considerably dilated, on the spinal side contracted or at most slightly dilated.—*International Medical Magazine.*

The Hereditary Transmission of Neuroses.

However heredity may act in the transmission of certain textural or nutritional disorders, or proclivities thereto, there can be no doubt of the fact that it does so act, says the Journal of the American Medical Association. It is true that disease may be conveyed directly from the mother to the fetus *in utero* through the placental circulation, but such a manifestation is in no sense an expression of hereditary transmission. Clinically speaking, it is not disease per se that is transmitted by heredity, but rather the morbid condition of tissue that either underlies or predisposes to disease—and this, it is to be presumed, is specific in the individual instance. In no class of affections is the influence of heredity as an etiologic factor more conspicuous than in the diseases of the nervous system, and especially the psychoses and neuroses; and this fact points the way to certain prophylactic possibilities. Thus, epilepsy, particularly if of the so-called idiopathic type, is often of distinctly hereditary type, is often of distinctly hereditary origin, and the adoption of rational and practicable measures looking to the restriction of marriages and procreation by the unfortunate victims of this disease would aid materially in limiting its prevalence. Such measures must depend for their enforcement largely on the intelligence and self-control of the community rather than on arbitrary and rigorous legislation. An instance illustrating the pernicious influence on the offspring of epilepsy in the parent is cited by Bourneville and Poulard in Progres Medical for September 29. A young married man in whom, without obvious cause, epileptic seizures began in the 30th year, begot eight children, two of whom died of athrepsia, and one of cholera infantum. Of the remaining five, one was the subject of petit mal and of violent outbreaks of bad temper; another was the subject of grand mal, with hallucinations of vision and disturbances of sleep; and one was neurotic and suffered from night-terrors. From a consideration of cases like the foregoing, which are by no means isolated, it is not surprising that the authors reach the conclusion that marriage on the part of the subjects of epilepsy and epileptoid psychoses and neuroses should be forbidden or strongly discouraged.

Atropin in Intestinal Obsruction.

A writer in the Mass. Med. Jour., Nov. 1900, reports a case of successful treatment of intestinal obstruction by large hypodermic doses of atropin. It was used in 3 cases in which purgation had failed. The abdomen was tender and much distended, and stercoraceious vomiting had occurred. The dose of atropin given was .005 (1-12 gr.). A single injection sufficed for the relief of one patient, while another required two before the lost function was restored, with simultaneous disappearance of the distressing and alarming symptoms. In the third case the treatment failed for the reason, as demonstrated at the subsequent laparotomy, that the obstruction was due to a band of fibrous tissue. Although this condition had lasted some time and the bowel was purple underneath the constricting band, severance of the fibrous band was followed by almost immediate restoration of color and function, the prompt recovery of the patient without a single untoward symptom.—*International Med. Mag.*

Aggravating the Complaint.

"No; my wife feels worse since she went to see Dr. Blunt."

"Indeed?"

"Yes; he told her there was very little the matter with her, and there was no reason to make such a fuss about it."—*Puck.*

These trade-mark crisscross lines on every package.
GLUTEN FLOUR For Dyspepsia
SPECIAL DIABETIC FLOUR.
K. C. WHOLE WHEAT FLOUR.
Unlike all other goods Ask Grocers

Criss-Cross Cereals

These trade mark crisscross lines on every package:
Gluten Grits AND BARLEY CRYSTALS
Perfect Breakfast and Dessert Health Cereals
PANSY FLOUR for Biscuit, Cake and Pastry
Unlike all other goods. Ask Grocers.

Successfully indicated as Diet in cases of

Dyspepsia, Diabetes, Constipation

A Diet of SPECIAL DIABETIC FOOD should show a decrease of sugar after two weeks' use, increased strength, relief from thirst, and much better rest at night.

"All these preparations are the best that skill, experience and capital can make, and a very careful examination, both scientific and practical, has shown that every claim made by the manufacturers has been fully confirmed as true."—AMERICAN ANALYST, NEW YORK.

Special Offer to Physicians

On application we will send an order on Messrs. W. C. Stronach & Sons, Raleigh, N. C., R. L. Christian & Co., Richmond, Va., or the nearest grocers who carry our goods for sample [illegible]

Farwell & Rhines
Watertown, N. Y.

A Twentieth-Century Resume.

With the dawn of the new century, it is both interesting and profitable to pause and consider the events and achievements of the past years, decades and centuries, and to "take stock," as it were, of our present national resources and conditions. The Government Census for 1900 enables one to appreciate how wonderfully our common country has progressed and improved in every material good; how our industry and commerce has enlarged and expanded; how our territory and population has increased and how rich we are in all that makes toward prosperity and advancement. It would indeed be a liberal education had one the time and opportunity to consult and examine the magnificent collection of statistical matter comprised in the returns of the twelfth census. Realizing, however, that such a mass of facts and figures is too confusing for the average mind, the makers of Lactopeptine, Liquid Peptonoids and Hemaboloids are engaged in compiling and arranging a 64-page book, entitled "Facts and Figues, Medical and otherwise, from the Census of 1900 and Other Reliable Sources." Fully one-half of this volume (32 pages) is made up of full-page colored lithographic maps and schematic diagrams, illustrating in a thoroughly clear, concise and graphic manner the most interesting and important subject matter, so that the reader can comprehend and appreciate it at a glance.

The following are some of the more interesting and important statistics thus graphically illustrated: "Accessions of Territory"—a map of the United States, showing, by means of contrasting colors, our orginal territory and subsequent accessions, with the dates, amounts paid and from whom purchased or ceded; "Distribution of Population by States"—a map similarly vari-colored, showing at a glance the comparative density of the population of each State and territory; Increase and Decrease of Population, 1890–1900"—illustrating the percentage of increase of each national subdivision; similar maps of Cuba and Porto Rico, respectively. Of medical and climatological interest are maps and diagrams illustrative of the comparative mortality of the various infectious diseases in the twelve principal cities of the United States; diphtheria mortality of New York, Massachusetts, Philadelphia, England, London, Chicago, Berlin, Paris, etc., showing graphically the pre- and post-antitoxine death rate; mortality from anesthetics; ratio of data inhalations; maps showing variations of altitude, sunshine, rainfall, etc., of different sections of the United States; schematic design showing comparative elevation above sea-level of the principal health resorts, with climatological and meteorological date relating to each. Other attractive charts represent the division of the population of each State and territory as regards city and country dwellers; color, race, etc., etc.

If we kept on, this notice would resolve itself into a table of contents of one of the most interesting, useful and instructive books of reference and general information ever published, either for gratuitous or paid circulation. The manufacturers of Liquid Peptonoids, Hemabolids and Lactopeptine, who intend to present this handsome, artistic, instructive and unusually expensive souvenir to their friends in the medical and dental professions, will be pleased to receive and file requests for same.

Constantinople was visited with a seveer snowstorm on January 16. The tramways were stopped and traffic on the railroads was interfered with.

Prevention of Ether Pneumonia and Nephritis.

The accidents attending operations have steadily decreased in number, keeping pace with the discoveries in regard to the action of germs and their life-habits. It is worth while questioning however whether there may not be a small but regular percentage of mortality traceable to germ-action which might be largely or in part excluded by forethought as well as after-care. It is now well known that pneumonia and acute nephritis are germ-diseases, and that exposure to cold, traumatism, and etherization are causes not adequate to produce these diseases in the absence of the germs. The often-quoted fact that the repeated exposures to cold and wet suffered by Arctic explorers do not result in colds and pneumonia is very much to the point, and there is little doubt that pneumonia and nephritis would not in Arctic regions, that is to say in the absence of germs, follow either operation or etherization. There is equally little doubt that much may be done to decrease the number and scotch the activity of the germs in the nasal cavity, throat, and gastrointestinal tract by antiseptic treatment.

A vigorous antiseptic preparation of the mucous membranes, and sterilization, so far as possible, of the gastrointestinal contents mey well be the thing needed to convert these "accidents" of operation from providential visitations into preventable curiosities.—*Cleveland Journal of Med.*

The Newspaper in Medicine.

If the daily newspaper is to discuss medical subjects, it should have a physician in charge of this department to save the harm which will otherwise happen. Some ridiculous statements have recently appeared in leading papers on various matters, that could only be understood by a medical man, and should have been edited by such an one. These articles are not only misleading and ludicrous, but in some instances dangerous. A medical man might be made of great service to the daily newspaper upon a variety of subjects that would naturally fall to his province, and perhaps be the saving of some disgrace, particularly if he were made a censor of all matters medical.

The daily newspaper has been recently imposed upon to advertise a proprietary medicine of foreign manufacture. In doing so it brought in the name of a prominent and esteemed citizen of this city, greatly to his annoyance. The articles were probably paid for at so much a line by the local agent to boom his remedy. Such conduct is the misleading of many and the humbug of a few.

The profession must lend its strong hand to help suppress the unethical methods of the manipulators of drugs in their efforts to reach the public, as well as to guard it from being misled by the newspapers, and both of these points can be accomplished by combined effort.—*Medical Times.*

The Temptation of Forceps.

According to the West London Medical Journal for January, Professor A. R Simpson is responsible for the following story:

An old practitioner, Dr. Gideon Gray, and his son set out one day on a long round of some fifty or sixty miles, with the possibility of the latter being left in attendance on a shepherd's wife. Just at starting the following discussion took place: "What's that ye're pittin' i' the gig, laddie?" "It's the forceps." "Did ye say your prayers this morning?" "Yes; why did you ask that?" "Why? My man! because it's nae guid praying 'Lead us not into temptation,' if ye tak' forceps wi' ye tae a midwifery case."—*N. Y. Med. Jour.*

Five years ago the Russian Government assumed control of the manufacture and sale of alcoholic liquors. In nearly all the provinces the saloon has been supplanted by the Government shops, in which a guaranteeded pure article is sold in a limited quantity to each customer. None is sold to those already intoxicated. These shops are located quite a distance apart, and no one is allowed to drink liquor on the premises where sold. The system is supplemented by officially appointed local committees in each large town, which are supplied with funds to establish attractive temperance restaurants, reading-rooms, and people's palaces. They are expected to maintain a general crusade against the use of alcohol. A portion of the enormous profits of the liquor monopoly is devoted to this purpose. —*Medical Times.*

An old Greek tradition declared that human beings had once two faces, four arms, four legs, but the Gods thought humanity getting too powerful and so separated each individual in two parts. As a result, much of the energy of the race is consumed in seeking the other half. Certain it is that neither men nor women can do their best until they find the missing half.

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An Illustrious Example.

Among the many encomiums bestowed upon the dead Victoria, it is recalled how much she did for painless obstetrics by submitting herself to the use of chloroform at a time when prejudice and superstition were arrayed against its use. When the Duke of Albany was born, anesthesia was used for the first time in a royal labor, and thus the stamp and approval of royalty was placed upon a proceeding which soon became universally fashionable. Another service the Queen rendered to medicine was by always having her professional entourage composed of men of high character and scientific attainment. Faith-cure, Christian science, or osteopathy never could have gained recognition of any kind from a woman of such shrewd common sense.—*Medical Age.*

Clutching at the Doctor's Money.

With the present wave of prosperity the get-rich-easy schemes seem to have taken a new lease of life. Their grosser and more obvious forms such as the gold brick and the 100% a week method seem to be a little antiquated; on much the same plane mortally are the bucket-shops, whose circulars are being sent pretty constantly to doctors. Such statements as this are quite typical: "This is a chance of a life-time to make big money, and although we wish to be conservative we cannot resist the temptation to urge every reader to take advantage of it, as we feel confident from experience that you will not have another such chance for years, and we know that if we can assist you to make big money now, you will be a permanent customer in the future." It is needless to say that the method is for the hapless individual who wants to make big money to pay a margin on stocks and wait patiently for them to go up. Whether the stock goes up or his money goes up might seem to be about an even chance, but when we consider the fact that the bucket-shop proprietors must make their living from their customers, and that the big money which keen financiers do undoubtedly make on Wall Street is shorn from the backs of the lambs who are their customers, it must be apparent that the chances are enormous against the novice. The whole thing is a game of faro, with a large rake-off for the bank, and it is to be hoped that hard-working physicians will not be so gullible as to swallow this sort of bait.—*Cleveland Journal of Med.*

The late Dr. William Pepper furnishes the subject for a glowing eulogy from the pen of Francis Newton Thorpe, formerly professor of American constitutional history in the University of Pennsylvania, in a recent number of the Century Magazine, under the suggestive title of A Remarkable American. The author, in speaking of his success in raising funds for the University of Pennsylvania, says: "He levied tribute right and left, on all sorts and conditions of men, and acted withal in a strikingly bold and irresistible way. After some thirty years of such action his public account stood something like this: Institutions founded: The University Hospital, the Commercial Museums, and the Philadelphia Free Library. Institutions reorganized and recreated: The University of Pennsylvania. Public reforms: The improvement of the city's water supply, and an entire change in the attitude of the public mind toward education and the ideals of life. To carry out these plans, Dr. Pepper raised above ten million dollars and secured about a hundred acres of land from the municipality, lying near the heart of Philadelphia. To the execution of this task he gave the service of one of the most acute and at the same time most practical minds ever vouchsafed to man. To this service of his genius he added the personal gift of nearly half a million dollars, which he earned in the practice of an exacting profession. It may be doubted whether any other American has run a like career."—*N. Y. Medical Journal.*

A teacher in civil government had told his pupils that once in ten years the state of Massachusetts takes a census. Little James, who is an attentive scholar, upon being called up to recite said:

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Misplaced Testicles.

Professor Annandale, in an article (British Medical Journal, December 1, 1900) on operations for congenitally misplaced and undescended testicles, states that when a testicle is either retained in the abdomen or displaced into the perineum, it loses its function after a time, and becomes entirely useless. The operation the author recommends for the relief of such conditions is as follows:

An incision is made so as to expose the spermatic cord and its junction with the testicle. The cord and testicle are then drawn out, and all attachments fixing the latter in its abnormal position are carefully divided. The corresponding side of the scrotum is opened up with the fingers, and the testicle placed in it. Two catgut or silk stitches are passed through those portions of the gubernaculum still attached to the testicle where they had been divided, and these same stitches are also passed through the base of the scrotum so as to fix the testicle in its proper position, and the opening through which the testicle had passed into the perineum is carefully stitched up by means of subcutaneous catgut sutures. The author considers that this operation should be advised and carried out in early childhood, so as to give the testicle a chance of developing properly.—*Treatment.*

Higher Standards of Medical Education.

The University of Pennsylvania, at the beginning of the present school year, adopted a curriculum embodying four years of exclusively medical study. This new curriculum has just been adopted by the State Medical Council, at its winter meeting, as the standard for Pennsylvania. Under this newly adopted standard the applicant for admission to a medical college must have attained a high degree of general education, and he will not be amitted to advanced standing in the medical school on ground that he has, for instance, studied anatomy in an art school, or chemistry in an electrical school. The fact that ninety or more applicants out of about 250 were rejected last September in the university examinations is taken as an indication that the new curriculum is to be lived up to, in spite of its immediate financial drawbacks. About ninety per cent. of these unsuccessful applicants have been admitted to other schools, a fact which is regarded as a thing that cannot occur again under the State's new standard. The attorneys-general of all the States in the Union have been made interested in a movement to make the standard of medical training in Pennsylvania, or its equivalent, the standard of other States. After lengthy correspondence between the Pennsylvania Medical Council and the medical boards of other States, a bill in Congress in now proposed extending the elevation of the medical standard throughout the United States.—*N. Y. Medical Journal.*

New Application of an Old Remedy.

Our wise legislators, in their desire to increase the facilities for rapid transit, by constructing an underground road, in which the propelling power of the cars would be electricity, have planned, it would seem, from facts recently brought to light, better than they thought. Since electricity has been substituted by steam on the London underground railways, it is averred that a trip over the road is a pronounced appetizer. Persons who for years have not had a speaking acquaintance with a respectable appetite, insist that they have been entirely cured by taking a ride over the underground road every few days. There is a possible reason for all this in the fact that electricity creates a certain amount of ozone, which, being confined within the tunnel, gives the passengers a bracing air to breathe, so that when they reach their homes the weariness of the day's work has, in a measure, vanished, leaving them with a sound, healthy appetite, ready for a good dinner and wide-awake for an evening's social enjoyment. And so our capitalists, in providing for rapid transit, are contributing largely to the longevity and general health of our citizens. Capital linked with science, the one at the command of the other, in rapidly solving the great problems of life, for the benefit of humanity.—*Medical Times.*

A Medical Practice Law for California.

A bill regulating the practice of medicine in California has been passed by the legislature, after being so amended as to be no longer obnoxious to the Christian Scientists and osteopaths. The act provides for the creation of a board of medical examiners to be appointed by the medical societies of the allopathic, homœopathic, and eclectic schools. The provisions regarding the qualifications of practitioners are more strict than heretofore; power is given to revoke licenses for unprofessional conduct, and advertising improbable or excessive claims to curative powers is ground for the charge of unprofessionalism.—*New York Medical Journal.*

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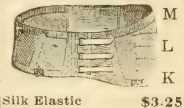

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A Case of Cobra Poisoning Treated with Calmette's Antivenin.

W. Hanna of Bombay, in the Lancet, Jan. 5, 1901, adds another to the list of cases treated successfully by Calmette's antivenin. His conclusions are:

1. That great care is required in handling poisonous snakes.

2. That the puncture of a fang of a poisonous snake is not to be neglected, as a considerable amount of poison may be forced out from the gland through reflex action, irritated by simple pressure on the fang.

3. That thorough sucking of the wound is of little avail as a local treatment; the poison lies deep, is viscid, and the bleeding in all probabilities takes place from superficial vessels.

4. That it is advisable to keep a stock of fresh antivenomous serum in dispensaries in India, and the use of this serum is not to be neglected, even after general symptoms have set in.—*St. Louis Medical Review.*

The monumental gateway of the Paris Exposition with its surmounting statue has been sold for $2,000 to a dealer in scrap iron.

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His Leg Cut Off Six Times.

The Kansas City Journal is responsible for the following veracious and affecting tale: Edward Conrad, a railroad gateman of Allegheny, Pa., suffered an injury some years ago which made it necessary to amputate one of his legs. Since then he has had five accidents, in each of which his artificial leg, which was provided him in lieu of the one he lost, was cut off.—*Medical Record.*

There is a good opening for a young doctor at Angeline, N. C. A young man who is not afraid of work can make money. For particulars address Dr. L. L. Johnson, Angeline, Henderson Co., N. C.

Doctor—A careful diagnosis of your case leaves no doubt that you have a stone in the bladder.

Solomon Isaacstein—Doctor, do you tinks it is a diamont?

The Charlotte Medical Journal.

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Asthma.*

By Charles S. Jordan, Asheville, N. C.

We have for discussion to-night one of those peculiar diseases, exactly the seat of and the exact nature of we have not yet fully determined. Asthma, since its beginning, has been a stumbling block and source of annoyance, both to the patient who has it and the doctor who has to cure it.

Seemingly, in many cases, it is a pure neurosis, characterized by spasmodic attacks of expiratory dyspnœa, more or less acute pulmonary emphysema and accompanied by general sibulant rales. These attacks occur at irregular intervals; more severe and of longer duration at some attacks than at others. The selected time of a seizure is generally at night, the patient awakening from a sound sleep with feelings of apprehension and anxiety, which rapidly increase and become more severe. The breathing, especially the expiratory, is sighing and whistling. It is impossible for the patient to remain in bed. The easiest position is sitting with hands resting on something in front of him. His brow is covered with cold sweat, hands clammy, expression becomes more anxious and pained, face more and more cyanotic, breathing is not quickened, if anything it is slower, owing to difficult expiration. All muscles of respiration stand tense and drawn; the cords in the neck prominent; veins in the throat rigid; shoulders fixed; in fact all of nature's force is arrayed in getting more air to satisfy his suffocated condition.

Every window must be opened, no matter how cold the night. This is a picture of an asthmatic seizure, lasting some times for three or four hours, and in others, disappearing as suddenly as it came on. No hour in the twenty-four is free from such seizure, but as I said above, there is a proneness for the night hours. Dr. Trousseau, who was an asthmatic, states that his attacks always came on at 3 o'clock in the morning without fail, whereas his mother's came between six and seven. These attacks, if left to themselves, will gradually subside, the dyspnœa becomes less and less, the muscular rigidity is toned down, the circulation, which before showed a thready pulse, now becomes soft and full, the extremities warm and then a free expectoration of bronchial mucus and the attack is gone. The patient feels completely done up, so tired and exhausted that he or she generally drops off into a sound sleep.

These seizures sometimes show prodromal symptoms, for instance, violent sneezing, an acute coryza, with abundant nasal secretion, a tickling in the larynx, violent coughing; in others a violent pain between the shoulders with a feeling of extreme goneness in the stomach, again a feeling as though a ton weight rested on the chest. No age is exempt. In fact, you oftimes meet with it in very young children, but there it is more or less complicated with a catarrhal condition. It is easy in early life to confound asthma with acute bronchial catarrh, but the absence of fever in the latter, its failure to respond to the usual antispasmodics and the sudden cessation of the attack will, as a rule, differentiate it for you.

In your physical examination, you will find an exaggerated pulmonary resonance over the entire chest, in fact the cardiac, spleenic and hepatic dullness, at times gives away almost completely. Vocal fremitus well nigh disappears owing to the exaggerated pulmonary resonance. On auscultation we find a most peculiar condition existing and yet one that is perfectly familiar to every doctor who has examined a chest during an attack, the normal vesicular murmur is displaced or entirely disappears and is replaced by high pitched sibilant rales which are so loud in character that they can be heard over the entire room. These rales are not all the same tone, some coarser in character than others and shifting from one position to another constantly. They are more pronounced if the seizures be prefaced by a chronic bronchitis, and when such is the case they are more or less crackling in character, becoming more moist as the attack passes off and the normal resonance returns. The cause of these conditions is one of great interest. We all recognize the fact that stenosis anywhere in the respiratory tract will produce asthmatic breathing. Any cardiac lesion which dams the return circulation back into the lungs,

*Read before the Buncombe County Medical Society.

liver or kidneys, will soon bring about conditions fit to cause asthmatic seizures. Again, reflex influences from the bladder, uterus or tubes will cause the same. Again skin eruptions, eczema, psoriasis, &c., we find intimately associated with it, as is shown by the exacerbation of the one with the allaying of the other. Trousseau mentions a case where the attacks were allayed by an artificially produced eczema with Ol. Tiglii.

Uterine disturbances are a fruitful source. I have now a case, which a day or two previous to her menstruation, an attack of asthma is sure, sometimes two and then again a third may follow the cessation of the flow. She also has a general eczema of fifteen years standing, and as the eruption grows lighter the asthma proportionally severe. Again, case number two, age 44, had asthma for eighteen months through her entire period of menapause, at completion of same the seizures disappeared. That was three years ago, until now there has been no return of attacks. The digestive tract is a most fruitful source of attacks. Asthmatics know full well what will and what will not agree with them. Sometimes the slightest indiscretion regarding diet will cause an attack in the shortest time. Full well do they likewise know that constipation will bring one on, and again an active liver will more or less abort it. Fatigue, tire, unusual exercise, a certain quick movement, sometimes, excitement or depression will be followed by a seizure. Darkness, itself, carries an immense influence with it, and again, climatic influences have a strong bearing.

According to Stucky, the cause of a great many of these cases is due or dependent upon disturbances of metabolism or intestinal disturbances. This we can see is true in a great measure, for any form of indigestion be it stomachic or intestinal, will surely have its reflex action on the respiratory center of these asthmatic patients. Again, a great deal is claimed for the uric acid diathesis. In fact, some go so far as to state that nearly all, if not all, cases of asthma are due to this cause, and if this particular condition is looked into and corrected that our asthmatic patients will, one and all, be free from seizures forever and ever, amen! Gentlemen, this statement is true in a measure, but I have my grave doubts as to the wholesale cure of these cases, for there are still other factors that play an important part in the causing of this peculiar reflex condition. The simple fact that a light left burning in a room will often times ward off an attack; again, simply the shifting from one bed or from one room to another will postpone a seizure. Of course, climatic influence bears an important part, for there are many sufferers, who at home by the sea will, on being removed to the mountains or to a higher altitude find perfect freedom from such troubles. Again, we will find the exact reverse, the seaside will be prescribed for the mountain asthmatic. Such is its peculiarities. Again, we are brought to face the psychical impression in connection with it. These mental science, hypnotism, telepathy, or unbounded faith in your doctor, will do wonders, for all these patients, being neurotics to a certain degree, will be controlled more or less by mental influence. As was snown by Dr. MacKenzie, who had a patient that on seeing roses always had an asthmatic attack. On this occasion he had made a perfect artificial one and held it in front of her. She forthwith had the usual attack. This simply proves the mental influence of this disease. Heredity plays an important part, for 40 per cent. of asthmatics inherit it, the larger part being males, owing to the added exposure,

The most potent source of all is the respiratory tract, for oftimes the cause will lie in the nose itself in the way of a polypoid. Again an enlarged turbinate, and yet again in some ulcerated spot in the mucous membrane, these of course causing through their reflex action the asthmatic attacks, for often times after being operated upon the asthma passes away entirely. Continuing down the tract again we find an old standing bronchial catarrh. This as a cause, stands out first and most prominent, for nearly all cases of asthma are dependent upon or complicated with this catarrhal condition, and it is owing to this added aggravation that the majority of cases yield so tardily to treatment. We can see a certain amount of plausibility for such a statement, for these asthmatic attacks are nearly all accompanied by more or less of bronchitis or bronchiolitis. According to Weber, these attacks are caused by the swelling of the bronchial mucous membrane in consequence of the dilation of vaso motors. A second theory is that it is caused by the spasm of the diaphragm and the muscles of inspiration- Again, by spasm of the bronchial muscles. Again, Curschman assumes that it is a disease of the bronchial mucous membrane. Bronchiolitis exudative, primarily, secondarily, causing the bronchial spasm. This would, in a great measure, explain the seizures, for in it would demonstrate the crystals of Leyden, also the spirals of mucin of Curschman, but it would not account for the sudden onset of the attack. There is where

the hitch comes. From what we know of the psychical impressions, I would say that they account for the suddenness of the attack through the respiratory center, then is added Leyden-Curschman's bronchiolitis exudativa, coupled with the partial spasm of the expiratory muscles, along with the diaphragm which in these asthmatic attacks lays at its lowest possible level and seldom, if ever, arches as it does during normal respiration until the acute attack is over. As soon as this impression or irritation to the respiratory center is worn out or exhausted, then the muscles resume their normal tone, the circulation becomes active again and a free mucus discharge from the bronchial tract takes place and our asthma attack is over.

As for treatment, every doctor has his pet prescriptions for his different cases, for seldom can two cases be treated alike, each having possibly a different cause. The drug that stands first is iodide potass or some of its forms, the very nicest being hydrodic acid, for where the iodides will not be borne the former will perfectly. Again, each and every anti-spasmodic, and in almost every combination, has been tried. Many use nitro-glycerine, strychnine, heroin and turpin hydrate. Then again, the different forms of coca or kola, lithia in combination; and again morphia and atropine. All of these will at different times come handy, for the doctor is fortunate indeed if he can use but one and only one. Some have recommended pure oxygen in simple asthmatic attacks. It is of great service, and yet where you have much bronchial complication it is good for naught. The very best treatment that I can find consists in making your patient get his daily supply of fresh air, a daily amount of exercise regulated to suit the case, good healthy, readily digested diet, along with a suitable tonic containing the fats suitable for both blood making and nerve building. Such a combination has to be made for each patient, for rarely will any two assimilate the same combination in the same way. Another factor, tending toward the cure of these patients, is a certain amount of forced pulmonary gymnastics, by force, I mean give them pure air under a pressure greater than that they could get under ordinary circumstances. By this I mean some form of cabinet exercise, for by this means, under forced air inspiration, you will see a gradual chest expansion as is shown by actual measure by the tape. An increased power, both inspiratory and expiratory, a gradual lessening of the mucus expectorations, a decided increase of the bronchial circulation, a diminishing of your chronic cough, a better nerve tone, in fact it simply lays a corner stone for a lessened attack next time. This you can see for yourself, gentlemen, for with an enlarged breathing space, properly used, you get an increased blood supply, a more active circulation, a strengthening of the elastic rings, a lessening of your emphysema, less chronic congestion and a nerve tone restored to a more normal condition. All this you can see at a glance. The benefits derived from this forced air gymnastics, I have been watching now for over forty cases of bronchial asthma, and in no case have I found the benefits derived but what was both pleasing to doctor and patient. I do not advocate this as a cure, but simply a help and one that drugs cannot take the place of.

DISCUSSION.

Dr. Morris.—The doctor mentions some of the complications of asthma. There are many not necessary to mention. Emphysema is, perhaps, the most frequent and most serious complication. He mentions reflex asthma and asthma due to irritability of the sympathetic (eczema) system, asthma due to bronchial irritation, asthma due to irritation of the genital organs, which, of course, is reflex in origin, and cardiac asthma.

As to treatment, the doctor mentioned quite a number. When you see a case where the paroxysm is on, the first thing you want to do is to relieve it; the next is to prevent a return of it, if possible; 3d, remove the pathological conditions causing the trouble. Now how you will accomplish that will depend, of course, upon the nature of the case and the cause. I think there is one great cause, which the doctor mentioned, which is the uric acid feature. The treatment here will be directed to the kidneys, using lithia waters and alkalies freely. Some will say that it is due to a lack of oxygen in the air cells. It is, of course, in part, but there is always a cause for lack of air. Now as to treatment. The doctor certainly could not get any better treatment if it is due to some of these reflex causes, which, of course, will have to be treated locally, but for these other forms of asthma the best treatment is iodide of potassium, Fowler's solution and strychnine. You may use your static current for neurotic asthma with strychnine, your faradic current for diaphrogmatic asthma and, perhaps, oxygen, and get good results, but I believe the sheet anchor medicinally, *per se*, in the treatment of these troubles is potassium, strychnine and Fowlers solution. Then, of course, if you can use electricity

to good advantage do so if possible. Change of climate, proper dietetic and hygienic conditions are always important factors in the scientific management of these cases.

Dr. Burroughs.—I have listened to the paper and the discussion. All cases of asthma are not due to neurosis. It is not a disease which should be classified as a neurotic disease entirely. I take issue with the doctor on that. Some asthma which we have is cardiac, others are due to bronchial catarrh where there is spasm of the muscles of the bronchi, and asthma is produced by a great many causes, some of which are neurotic in origin. There is no doubt that in the majority of cases there is poor elimination, and you will find that there is uric acid condition in many cases, but whether that produces the asthma or the asthma produces the uric acid condition is a question. This alka-lithia treatment for asthma, while good for some cases, is a failure as a whole. To make a statement in regard to treating asthma, I would suggest that you relieve the patient when you see them in the paroxysm, probably with morphia and strychnine, preceded by nitroglycerine, and after they are relieved treat the patient between the attacks. Be sure you keep the bowels thoroughly swept out, that you keep the kidneys going properly, that you give them good fresh air, and a diet which is easily digested and assimilated, and you will find your attacks of asthma will be further apart and will be lighter when they do come. If the attacks of asthma continue to return, even though they be lighter, I would suggest a change of climate. I believe a change of climate is the treatment for asthma above all others, beyond looking after the general running condition of the system. I have known many cases whose lives were rendered miserable at points, and would change from one State or one county to another, and be entirely free from asthma. There is a prevailing idea with the medical profession that asthma does not exist in very high altitudes, but one of the worst cases of asthma I ever saw was in a gypsy, above the timber line, about ten thousand feet above the level of the sea. I have seen it at sea level too, but those cases which develop asthma at one point are apt to be free at another for awhile, but they will eventually wear out almost any climate. In regard to the patient the doctor spoke of, getting asthma from the rose, she did not have asthma—she feigned it. I had a patient who could feign asthma at any time. She wanted morphine and I would not give it to her, and that was the reason my services were not needed any more. I refused to give her morphine, but gave her nitroglycerine and a purgative, and the result was that she changed doctors, but she did not have asthma. There are many complications of asthma, for instance, tuberculosis and bronchial catarrh, each of which need special treatment, but fresh air, easily digested food, and keeping the bowels open and kidneys going, with change of climate as necessary, offers the greatest comfort to the asthmatic.

Dr. Morris.—While the doctor differs from me in his statement, yet he fails to make his difference clear. I believe I mentioned the cardiac and reflex asthma and catarrhal asthma. While you relieve the paroxysm with morphia, with Fowler's solution pot. iodide and strychnia, you cure as nearly as possible a condition. You will later follow it with this treatment. I believe the doctor failed to show that asthma is not a neurotic condition.

Dr. Ambler.—Having failed to hear the first part of the paper, I perhaps should not attempt to discuss the subject at this time. However, I wish to put myself on record as believing that cases of asthma are due to a reflex condition originating in the nose. And further, I do not believe it makes much difference whether this pressure comes from polypus or what other means. And further, I believe many of our cases of asthma are due or greatly exaggerated by faulty kidney elimination. Dr. Borroughs has stated that in his opinion an alkali or lithia treatment is a failure, but this is contrary to what has been my experience. I have found that lithia tablets, lithia water, or any good diretic is one of the best things we can give our asthmatic cases. It is a question whether asthma produces phosphates and uric acid in the urine or whether asthma produces phosphates and uric acid in the urine or whether phosphates and uric acid produce the asthma, but in as much as when the phosphates and uric acid clear up the asthmatic attacks subside, the procedure to follow is obvious. For the treatment of an acute paroxysm, nothing will give the relief which morphia will. In chronic cases the iodides have not been a success in my hands. Strychnine is of considerable benefit.

Dr. Reynolds.—Dr. Jordan has discussed asthma thoroughly, from its pathology to its treament, and claims to have had a great deal of success with only one remedy, and that is pulmonary gymnastics. I have never tried that. I have had several cases of asthma. We have all had cases due to polypi, turbinated bone disturbance, etc., and we have all tried these various remedies, and I do not think there is a man in this house who has ever made a permanent

cure. I remember a case under Dr. Burrough's care which finally fell to my lot, and every few weeks I thought that my patient would die, but she never did. She finally left here and went to the eastern part of the State. I was much interested in the case and kept up with it. She claims that she has not had an attack of asthma in six months, and that the doctor there has relieved her and finally made a cure, but I will never believe it until she comes back to Western North Carolina. I have a case under my care now that has been every. where, Michigan, Colorado, Florida, and other places. He has the means to take any treatment he likes, and has taken almost every treament since infancy and he has never found anything to relieve him except hypodermic of morphia, and that temporarily. I believe the Greek word that gives the definition of asthma, "I blow," is all that we can do. We can blow but we can not cure asthma.

Dr. Battle.—I did not hear the paper and cannot discuss it, but I think change of climate is one of the best remedial methods.

Dr. Sawyer.—I differed with Dr. Jordan in regard to uric acid. I think that is one of the most important causes. Of course we recognize that asthma is frequently a neu rosis, but not always. The direct cause of the paroxysm may be reflex from any part of the body from the end of the toe to the hair, just so it is reflex. Generally speaking you will find the patient neurotic, very frequently, indeed, the uric acid diathesis, and if that is the case you must relieve the cause as best you can. In the case that Dr. Ambler mentioned, if, at the time that congestion was coming on, he had used a strong solution of superenal extract in the nose and internally, it would have relieved the trouble, I think. Of course arsenic and iodide of potassium are very good in the interim, but for the immediate attack I frequently have to resort to chloroform in bad cases. Morphine, nitroglycerine and strychnine are the things commonly used. In the uric acid diathesis, you must use lithia and some alkali. I have always found that pulmonary massage is a very efficacious remedy. I use as my great mainstay aspidaspermine or chloral hydrat in a glymol solution in the comminuter, both during the attacks if posible, and especially between them. These give marked relief, and the attacks are farther and farther apart, and sometimes eliminated, so far as I know. I doubt if they are cured, but certainly some have been vastly relieved. Another remedy for acute attacks is a solution of menthol and eucalyptol used as an inhalation and by vapor massage. The most important thing is a change of climate, next the regulation of the diet and excretion and secretions. Then remove all causes of irritation, whatever they may be. A very excellent thing is a system of cold baths every morning. It gives tone to the nervous system as nothing else I know will. The nervous system seems toned up so that the patient frequently does not have the attack for a long time, or at any rate in every case I tried it the attacks have certainly been lress frequent.

As I have already said, the diet is most important, exercise is also very important, and systematic breathing is also very good, inasmuch as it dilates the bronchioles and air vesicles and gives them more tone. A great deal of our success lies in building up physically, and making the patient take care of himself and not overload his stomach. I find excessive use of alcohol is especially prolific in causing asthma. The climatic, hygenic and diétetic treatments are the ones that count the most.

Dr. Reynolds.—I just want to state a little instance in connection with the cure of asthma. It was the mother of the son who was under Dr. Borroughs' care, and who was a great suffer from asthma. Her husband ran across an asthmatic cure which consisted ot a powder, 50 in a box. She took 25 of those powders. She used to have asthma once or twice a week, and after she took these 25 powders she went away from home and came back again and for two months never had an attack. When I got the remedy and gave some to another patient and he took three boxes and for months never had an attack. Then he had another attack and took another box and it did not do any good, so he took a second box and it did not do any good. But it certainly cured the first woman. I could not see any effect except that it relieved the asthma. I will relate another case that happened in town while I was excited about that powder. A young man came to my house about 11 o'clock one evening, to see me about his father. These powders had just come and I told him to take four and give them to his father, which he did, and his father slept all night and lived for ten days, and his attending physician had left the house that night and told them he would not live an hour. I want to take issue with Dr. Burroughs. Undoubtedly asthma is a neurotic trouble, and can be produced by anything that will excite neurosis.

Dr. Woodcock.—I believe with Dr. Battle, that climate plays an important part in the treatment of the disease. I knew an old gentleman in this city a good many

years ago who had to send his son to Galveston on account of asthma. His son had a son, and he could not live there, and is now living here. I do not believe that altitude altogether is the treatment. I believe it is change of climate. I think that a great many cases of asthma are due to uric acid.

Dr. Ambler.—I read a paper before this Society about seven years ago on cocaine and in this paper reported a patient with whom I used cocaine preliminary to an operation upon the nostril. This patient had been suffering from asthma all her life, but I am pleased to be able to report tonight that following the operation seven years ago (which operation consisted of the removal of a large spur from the septum) our patient has never had another attack of asthma.

I agree with Dr. Jordan that the pneumatic cabinent is of great value in the treatment of the old established case of asthma.

Dr. Van Bergen.—There is a case known to at least two physicians in this town where a man never had any asthma until he was operated on. He has been operated on at least 25 times, and is steadily getting worse. Asheville seems to agree with him about as well as anwhere else. I agree with Dr. Sawyer that stimulants are not good. I believe that contra-irritants, cupping and mustard plasters are good. I have seen a few cases, and my experience is that we have to increase the narcotics as we go along. I think if the iodide is continued long enough, a change of climate is all that will do. The neurotic asthmatic outgrows the climate. I have seen them carried to the train and get in it, and after a few hours they feel all right and when they get back they have another attack.

Dr. Jordan.—Of course there is someing in patent medicines. They will give a certain amount of relief for the time being, but as Dr. Reynolds well said, it is only temporary relief. In fact, as far as we know, for asthma pure and simple, they correct to a degree about as well as anything we have on the market. Take change of climate from Maine to California, and sometimes from one bedroom to the other, and sometimes you will get the same effect. Of course, I agree with all the gentlemen as far as climatic changes go, but even these wear out. Some of the gentlemen thought I was advocating higher altitude. You can bring your sea-level patients up here and their asthma will disappear. At the same time, if you have a case of asthma here, you have to remove it to a lower level or possibly to the sea, and you will experience the same kind of relief. As to reflex conditions resulting from polypoids in the nose. When those causes are removed, if the asthma is due to them alone, the asthma is gone, and where it is due to eczema, wherever it is, the asthma in that case is purely reflex. It is not due to the little inflammation, but is more or less systematic in character. There is bound to be more or less poison in the system to bring about reflex action and bring about an essential attack. I wound up my paper with a plea for pulmonary gymnastics carried on systematically, and by that I mean daily, and gradually you will find that it develops all the muscles of the chest, gives a greater breathing space, produces new life in the air cells, and will give more circulation, and in that way establishes more nourishment, to those parts, and in doing so will bring greater nerve tone and enable them to throw off greater asthmatic influences than before. You can see that it is perfectly rational treatment without detrimental tendency to the heart or chest. You lessen your asthmatic seizures when they come and stay them off longer than you otherwise would, and through the increased breathing space you increase your eleminative power generally and in doing that increase your systematic nourishment, which means greater nerve tone generally.

Intubation and Anti-Toxine in the Treatment of Laryngeal Diphtheria.*

By J. W. Long, M.D., Salisbury, N. C., Emeritus Professor of Gynecology and Pediatrics in the Medical College of Virginia.

This paper relates to the management of laryngeal diphtheria only and not to diphtheria as we see it in the fauces or nasal cavities.

Prior to the modern methods of treating laryngeal diphtheria the mortality was simply frightful. Exclusive of tracheotomy, the treatment under either of the older methods gave about the same results; to-wit, a mortality of 90 to 100 %.

Tracheotomy gave a somewhat better showing, 2417 cases collected from private practice reduced the mortality to 75.8 %.

Intubation lowered the tracheotomy mortality slightly, 5546 cases showing a mortality of only 69.5 %.

These percentages, it is to be remembered, were obtained from tracheotomy and

*Read by title before the Tri-State Medical Association, February 27, 1901, at Richmond, Virginia.

intubation applied to cases that were being treated by the older methods.

With the adoption of calomel fumigations, the percentage of mortality in cases in which either tracheotomy or intubation was done, was considerably lowered. This is clearly shown as regards intubation by the experience of Dillon Brown. He did 490 intubations, without calomel fumigations, with a mortality of 65.2 %; following these, he intubated 279 times, at the same time using calomel fumigations, and reduced his mortality to 50.6 %.

This was perhaps the best showing ever made in the treatment of laryngeal diphtheria before the discovery of the anti-dotal properties of anti-toxine, in 1895. Anti-toxine gave such favorable results when used in cases of faucial diphtheria, reducing the mortality, when used early and in sufficient quantities, to about 5 %, that physicians looked to its use in laryngeal diphtheria with great confidence; and in this they have not been disappointed.

A great many statistics have been collected showing the immense value of anti-toxine over every other form of treatment for laryngeal diphtheria, but it is hardly necessary to repeat them here, except to say that a large number of cases collected from private practice treated with anti-toxine and intubation show a mortality of only about 25 % as against 75 % when treated without anti-toxine.

My own cases are too few to base an opinion on, but they show a mortality of 16 2-3 %, and but for unfortunate circumstances (see case VI), I believe the mortality would have been nil.

Indeed the accumulated experience of the profession both in America and abroad goes to show that anti-toxine is a true specific against the virus of diphtheria, especially when it is used within the first twenty-four or forty-eight hours of the disease and when given in sufficient quantities.

I think it is no exaggeration to say that any physician who is liable to come in contact with these cases is not properly equipped to deal with them, unless he has within his own possession or within reach a supply of fresh anti-toxine and a suitable syringe. With these should go an intubation set as well as the ability to properly introduce a tube. I mention this latter point because it requires as much dexterity to introduce a laryngeal tube as to do almost any small operation in the whole range of surgery. Proficiency is best attained by prolonged practice on the cadaver. I did this until I could introduce a tube, lay down the introductor, pick up the extractor and withdraw the tube within six seconds. This is sufficiently expeditions, since fifteen seconds are allowed in which time to introduce the tube.

At this day when the profession generally has accepted the value of these two procedures, anti-toxine and intubation, in the management of laryngeal diphtheria, it would seem almost like a work of supererrogation to offer a paper on this subject and I would hesitate to do so but for the fact that now and then I meet a physician of intelligence and experience and who doubts the efficacy of anti-toxine, and who never did or ever saw the operation of intubation; in other words has not been convinced of the immense value of these therapeutic resources.

This is hardly to be wondered at in this giddy age of rush and mad clamor for every "will of the wisp" which is presented to the busy practitioner by manufacturing pharmacists and ubiquitous drug drummers. Conservative men are slow to take hold of new things, but we may now say with assurance that anti-toxine in the treatment of diphtheria has been tried and proven to be all that is claimed for it. And intubation is its strongest ally in laryngeal cases.

In support of my position, I will quote briefly the following cases which I have seen in my own practice or in consultation with some of my professional brethren.

Case 1. F., a girl of eight years living in a town some distance away, was under the care of two most competent practitioners. They recognized the trouble promptly and believing fully in the value of anti-toxine, gave the patient 1300 units of anti-toxine. After twenty-four hours the symptoms were not abated, to the contrary had become worse. I was asked to see the child in consultation. Before my train could reach the town the child was believed to be dying, and it was suggested that they wire me not to come, but thinking that I had probably started, they let me come on. When I reached the house the child was unconscious. Taking in the situatian at a glance, I immediately introduced one of O'Dwyer's tubes into the larynx. This gave immediate and pronounced relief. At my suggestion the attending physicians then gave 1000 additional units of anti-toxine. From this moment the improvement began and in forty-eight hours the child was considered practically out of danger. The tube remained in situ for five days. The recovery was perfect.

Case 2. B., a little boy nine months old, was seen one morning after he had passed a restless and fretful night. There were slight evidences of laryngeal obstruction, and little patches of membrane could be seen in the fauces. 1000 units of anti-

toxine were given at once. By afternoon the laryngeal symptoms had increased and after a conference with my associate, I introduced an O'Dwyer tube. The relief was immediate, but not so marked as in the former case. The next morning evidences of the progress of the disease were still present, and we gave 1500 units more of the anti-toxine. Suffice it to say that this little fellow, after developing a pretty sharp attack of pneumonia, which is very common in children under a year old who have been intubated, made a perfect recovery. The tube remained in the larynx for nineteen days. It was remarkable to see the little fellow nurse his milk from the bottle with his head hanging down toward the floor.

Case 3. R., a boy ten months old, had been croupy for two nights when first seen by the writer. The nature of the case was at once recognized, 1000 units of anti-toxine given, and after a few hours a tube was introduced to relieve the increasing laryngeal obstruction. The tube remained in position forty-eight hours, when it was removed to see how the child would breathe without it. While the laryngeal stenosis was not entirely overcome at once it was not found necessary to replace the tube. The child made a perfect recovery.

Case 4. L., a boy two and a half years old, had been sick for three days with laryngeal diphtheria. I saw the case in consultation in the early part of the night, at which time the symptoms were so severe that it was believed by all of those in attendance that the patient could not live until morning. The child had already received 1500 units of anti-toxine. I advised that 1000 units more be given at once. I immediately introduced an O'Dwyer tube. The recovery was rapid.

Case 5. F., female, twenty-two months old, had been croupy for several days when seen by the attending physician. He recognized the nature of the trouble and asked me to see the child in consultation. We gave from first to last to this little patient 3500 units of anti-toxine. An O'Dwyer tube was introduced on the occasion at my first visit, which gave marked relief from the obstructive breathing. After a few hours the tube became completely occluded and it was necessary to remove it. In a few hours more the laryngeal stenosis developed again and the tube was re-introduced. Before introducing the tube the second time the child was believed to be dying and the family said "you have come too late, Doctor, the little girl is gone." However, I insisted on introducing the tube again. The relief from the difficult breathing was quite as marked as before. During the course of this attack the tube was removed two or three times and as often introduced. The end of it all was the child got well.

Case 6. Within 10 days from the time that I saw the last case reported and in the same neighborhood, I was called in consultation to see another child two and a half years old, and who, like No. 5, had been croupy for several days before it was seen by the attending physician, who at once recognized the trouble and asked me to see the child with him. We gave 1500 units of anti-toxine and intubated at 2 o'clock in the night. The relief was instantaneous and very marked, and I left the house after a little while feeling that this was a favorable case for recovery. About 8 o'clock the next morning the physician 'phoned me that the child had accidentally jerked the tube out, a string having been left in the tube to be used in withdrawing it in case of an emergency, and he asked me to return with the view of replacing the tube. I was exceedingly busy just at that hour and said to him that if the child was breathing fairly well I would defer my visit until about 11 o'clock, A. M., and requested him to notify me if laryngeal obstruction came on before that time. The doctor was called to attend a case of great urgency and did not return until about the time I reached the patient's house at 11 o'clock, when we found the child dying.

I feel that I am in a measure to blame for this child's death, for I should have returned at once on learning that the child had pulled the tube out.

These six cases are not enough from which to establish a rule of action, but the success attained in the treatment of them is in line with what other men have accomplished with a larger number. I might also cite quite a number of other cases coming within the bounds of my knowledge, but those already given certainly go to show the value of intubation and anti-toxine in the management of laryngeal diphtheria, for even with the loss of one out of six we have a mortality of only 16.2-3 %, against 90 to 100 % without the use of these remedies.

The Surgical Treatment of Empyæma.*

By Southgate Leigh, M.D., Norfolk, Va.; Visiting Surgeon St. Vincent Hospital, Etc.

The operation for Empyæma is usually

*Read before the Tri-State Medical Association of the Carolinas and Virginia, held at Richmond, February, 27th, 1901.

an emergency operation, the patient not falling into the hands of the surgeon until the disease has fully developed. Their general condition is always bad and often desperate and management therefore requires prompt vigorous treatment combined with caution and conservatism. The operation is simple, but the saving of the patient's life is often very difficult. Location of the effusion is ordinarily not difficult, and its nature, suggested by the usual symptoms of the presence of pus, can be readily ascertained by an exploratory aspiration. As a rule the pus is found in the lower part of the chest, due largely to the fact that patients with this affection assume the sitting posture on account of the greater ease in breathing. In these cases the fluid is easily located by the exploratory needle, introduced at either the fourth, fifth, or sixth interspace in the mid axillary line. Such an aspiration requires a small aspirating syringe and a needle of rather large calibre and at least three inches long. The patient is best put in the sitting posture well supported, and the fluid located by percussion and auscultation, the former producing flatness and the latter absence of vocal and respirating sounds. Irregular adhesions of the lung to the chest wall frequently modify the physical signs greatly. The skin must be thoroughly sterilized, as well as the aspirator and the operator's hands. The introduction of the needle may be made practically painless by the use of ice and the injection locally of a 1% solution of Cocaine at the site of the proposed puncture. The needle is thrust in at right angles to the surface, and along the upper border of the lower rib to prevent wounding the intercostal artery above. If a slight withdrawal of the piston does not at once bring fluid, the needle may be cautiously inserted farther into the chest.

Empyæma may be localized in various other parts of the chest, but such cases are more difficult to handle. Aspiration must of course be done where the fluid is supposed to be.

One of my recent cases markedly illustrated the effect of *position* in determining the location of the pus. The patient, a healthy young girl of fourteen, living in Southampton, Va., was taken with violent pleuro-pneumonia of the right lung about Christmas time. From the beginning, notwithstanding a rapid respiration, she preferred to lie *flat on her back*, and so continued throughout the course of the disease. The rapid breathing continued after the subsidence of the pneumonia, attended by a high pulse-rate and slight temperature. I was called to see her at the third week. Found her very nervous with pulse of 130, temperature 101, and *respiration 50 to 60.* Physical signs were very peculiar. In front and on the side there was dullness over the lower half of the chest, almost amounting to flatness, and very faint respiratory murmur. It was only at the very back of the chest near the spine that the flatness was complete. Exploratory puncture at the sixth interspace near the posterior axillary line brought pus. (Examination of this later showed it to be filled with Pneumococci).

Respiration being so difficult I thought it best immediately to remove some of the fluid, which I did with an aspirating pump. Her symptoms improved so much that we determined to delay operation for a few days, in the meantime giving her considerable stimulation. Four days later I resected the seventh rib at the posterior axillary line and on opening the pleura found my finger against the edge of the lung which was adherent all the way down in front and to the side. I was obliged to take off another piece of rib in order to carry the opening farther back to get in my tubes. The cavity contained a large quantity of pus which extended in a layer along the whole length of the chest wall behind. This patient steadily improved and is making a good recovery. On account of the extensive lung adhesions she ought to have almost perfect expansion.

When we find pus in the pleural cavity we must get rid of it as promptly and as thoroughly as possible, consistent with the patient's safety.

As mentioned before, many of these cases first get to the surgeon when they are in a desperate condition from septic absorption and from reduction of breathing space. The latter usually demands our most urgent attention. In such desperate cases a part of the fluid should be at once withdrawn either with the aspirating pump or with an ordinary trochar plunged into the cavity; and the patient must be vigorously stimulated hypodermically to tide over the immediate danger. Oxygen by inhalation is a great aid in such cases, as in all cases of reduction of the breathing space. The Oxygen apparatus now manufactured by the White Dental Company is so simple in arrangement and so convenient to transport that no modern physician should be without it. The gas being compressed to a liquid necessitates only small cylinders, and never spoils by keeping. There is not much doubt in the mind of the profession as to the efficacy of oxygen. Its employment in a few suitable cases, however, will convince every one of its usefulness.

I shall never forget the wonderful effect of Oxygen in a desperate case a few years ago. The patient, a robust man of about 40, was shot by a pistol carrying a bullet of 44 calibre. The ball entered about the middle of the breast bone, passed downward, outward and backward, through the middle of the right lung and was found under the skin of the back of the chest. The lung was not only practically disabled by the wound and the entrance of air, but the pleural cavity rapidly filled up with blood. When I reached the patient shortly afterwards, he was in a desperate condition, with a cold perspiration, weak and rapid pulse, cyanotic and gasping for air. The effect of oxygen was perfect, his color cleared up, respiration diminished, and above all, he was relieved of the terrible feeling of suffocation. In his case I continued the inhalation from time to time for about forty-eight hours, by which time he had become accustomed to his diminished breathing space. This same man when he read of the shooting of the Governor of Kentucky insisted upon telegraphing him to use oxygen, so gratifying had been his own experience with that gas on a similar occasion.

In operating for Empyæma *I always prefer to remove a portion of a rib.* The advantages of this procedure are manifold and important. The opening can be made much larger, and better tubes inserted; exploration can be made with the finger; there is no danger of wounding the intercostal artery, and any other hemorrhage may be easily controlled; and finally a more *rapid operation may be performed.* For excising the rib I have had made a specially constructed bone cutter of the usual shape but about three times as large as the ordinary bone cutting forceps. So powerful is it that any rib may be cut through its long diameter and almost instantaneously.

In operating the location of the incision is important. To prevent the necessity of a second operation it is wise to make the opening at the lower edge of the cavity. It is usually safe to choose either the seventh or eighth ribs at either the middle or posterior axillary line. In a localized empyæma the incision must be made wherever the pus is found.

In preparing for the operation every arrangement must be made to facilitate a very rapid procedure, and to look after the patient's general condition. It is usually safe to give a little chloroform, preceding it by a hypo. of strychnia with a small dose of morphia and atropia. Hypos. filled with other heart stimulants should be at hand. The patient should not be turned on the good side, but must be kept on the back during the operation. In order to make accessible the site of operation pillows may be put under shoulders and hips, and the patient brought a little over the edge of the bed or table. The operator, if necessary, must work from beneath. The site of operation is properly cleansed, and all instruments ready and accessible. The incision should be about three inches long, and one sweep of the knife should carry it down to the rib. Retractors are quickly applied, and bleeding spots grasped by artery forceps. Another incision cuts through the periosteum, which is rapidly separated from the rib by an elevator, especial care being taken to strip the groove in the lower edge of the rib to prevent wounding the intercostal artery. The elevator is then slipped under the rib, between it and the periosteum, and caried towards the right end of the incision. At this point the bone is cut through by the bone cutters at one bite. The elevator is quickly slipped to the left and the bone cut again, removing a piece of about 1 1-2 or 2 inches long. The aspirator is now inserted through the middle of the wound to be sure of the location of the pus. Then on the needle as a guide a grooved director is passed, followed by a dressing forceps to enlarge the opening. The finger should now be inserted to explore the cavity and to prevent the pus running out too rapidly. The drainage tubes should be rather large, of soft rubber, but firm enough to prevent their lumen from collapsing. They need not be long, not over three inches, one perforated the whole length, the other only near the end. They are kept from going too far into the cavity by large safety pins attached to their outer ends. If the patient's condition will permit, it is well to put in two or more sutures to partly close the external incision. Then pack the remainder of the wound with Iodoform gauze, putting a split piece around the tubes, apply loose gauze, cotton, and a binder.

The patient usually feels much relieved after the operation, though there is often a tendency to an irritating cough caused by the tubes.

Diligent care must be taken of the case after the operation. Constant watching of pulse and respiration. Free use of strychnia and whiskey, also sparteine, caffeine, and digitalis as indicated. Later large amounts of nourishment should be used, especially milk and egg albumen. After two or three days it is best to irrigate the cavity with 2% solution creolin, using a fountain syringe and only slight pressure. The incision heals rapidly up to the tubes, and there is never any trouble from the ends of the

rib which soon smooth over by granulation. The irrigation should be repeated daily. The tubes may be shortened as the cavity contracts, but one at least must remain in until the space has been obliterated.

Hutton's apparatus to prevent the entrance of air into the cavity is of no practical value. Expansion of the more or less collapsed lung is brought about by the adhesions to the chest wall. Building up of the general health is of utmost importance. This is best done by tonics, a great deal of nouishing food, fresh air, and moderate outdoor exercise. Improvement in the general health increases the healing power and thus lessens the purulent discharge. Additional muscular power causes better respiratory action and consequent improvement in expansion of the affected lung as far as the adhesions will permit. Any cavity still left after such improved expansion must be obliterated by a natural collapsing of the chest wall, which occurs gradually and spontaneously.

If the cases are treated properly and especially if due attention is paid to the *vigorous building up of the general health* they should all recover, unless, of course, there is active tuberculosis present. Naturally the time of healing varies greatly, and is influenced by many conditions such as age, physical condition, and especially the extent of the adhesions. I have known cases to recover within a few weeks, while others have taken months, and a few even years to get entirely well.

If the opening is not made at the bottom of the cavity, and pus accumulates at that point, it is generally advisable after a week or so, to do a secondary operation, removing a piece of a lower rib and inserting another tube. I have found this necessary in two of my cases. In both, healing took place after the second operation. If after several months of good treatment there is still left some cavity, Estlander's operation has to be resorted to. It is necessary in only a very limited number of cases. The operation simply consists in excising a section from a sufficient number of ribs over the cavity to permit the chest wall to collapse enoug to obliterate the space. In doing this operation a vertical incision is made to expose all the ribs to be cut. A piece of each rib from one to two inches long is excised. Unless the case is of very long standing it is not necessary to excise the pleura. If possible, during the operation and the subsequent dressings the new wound is kept separated from the old septic sinus by a proper arrangement of the incision, and by glueing a piece of rubber tissue to the skin with chloroform. The fresh wound should be closed and healed by first intention. I have had to resort to this operation only once, myself, and then the result was good.

In a few cases of Empyæma where the space between the ribs is sufficiently wide to admit a good-sized tube, it is proper not to excise a rib. Especial care has to be taken to avoid the intercostal artery, by keeping the incision close to the upper border of the rib below.

In very desperate cases, the operation may be done without chloroform, using an Ether spray and injecting a week solution of cocaine. Usually, however, a few whiffles of chloroform may be just as safely employed. Ether should never bé used on account of its irritating effect on the respiratory tract.

My cases have varied widely in age, from 1 1-2 years up to 50. Most of them have been children. Expansion and healing has been more rapid in the younger cases. With three exceptions I have excised a rib in each. There has been no *necrosis* of the bone. In most of my cases there has been extensive adhesions, and in consequence expansion took place fairly well with not much sinking in of the chest wall. In all there has been the most marked effect from tonics, fresh air, and forced breeding. Two of the most interesting and at the same time the most desperate cases I shall mention more at length.

The first, a boy 12 years old, came to my service at Mt. Sinai Hospital in March, '91, with a history of double pneumonia followed by pleurisy with effusion in both sides. Had been aspirated with temporary relief. On admission to the hospital his condition was fearful. Examination and aspiration showed pyopneumo-thorax on the left side and empyæma on the right. His condition was so bad that I feared to give even a whiff of chloroform. I gave him all the hypo. stimulation he could stand, along with a small dose of morphia and atropia. Locally I used ether spray and 1-4% solution of cocaine. With but little pain, I excised a portion of the seventh rib at the middle axillary line. On opening the pleural cavity a stinking discharge of pus and gas flowed from the tubes. The patient picked up a little day by day until a week later when I felt safe in giving a little chloroform and opening the right side of the chest. This he stood fairly well, but was still in a dangerous condition for weeks. Adhesions around both lungs were extensive, and to this fact chiefly, I attribute his final recovery. In June a sinus still persisted on each side. leading to a small cavity. In July I sent him on an ocean voyage. After he had been at sea about a

week he lost both tubes from the chest and the sinuses healed up shortly afterwards. He returned home robust and absolutely well.

The other case, a girl, 12 years old, I saw first in April, 1900, in Gates county, North Carolina. She had had grippe pneumonia in the left lung. Her condition was very desperate with a weak and rapid pulse of about 150 and respirations in proportion. Examination showed a large localized empyæma, confined to the front part of the chest and under so much pressure that it had displaced the heart to the right of the sternum. The fluid had broken through the chest wall and formed a large tense fluctuating mass under the skin. On account of her condition I could do nothing more than make incission opening the superficial abscess, and insert a drainage tube. A great quantity of pus was evacuated. When I saw her again a week later she was still in a precarious condition, and I had to content myself with making another slight superficial opening lower down, for better drainage.

She was kept in the fresh air all the time, stimulated and nourished as much as she could stand, and she gradually gained some strength. A few weeks later she was brought to Norfolk and put in the hospital.

I found that the last incision was nearly opposite the opening into the chest and therefore the drainage was fairly good even without a tube. A few weeks lates under chloroform, I enlarged the incision and made a better opening into the chest, inserting a stout tube. I did not excise the rib because the opening was so near the heart I was afraid the end of the bone might injure the pericardium. She has been home some months and is doing well.

A few days ago she came to see me. I found her in robust health, with only a slight sinus left. This I think will heal rapidly on withdrawal of the tube. The heart has returned only partially to its place, but the lung has expanded fairly well. The lower front part of the chest wall has sunken in sufficiently to obliterate all the cavity which remained.

Determination of Sex. A Review of the Subject, with Remarks.

By C. W. Canan, M.D., B.S., Ph.D., Orkney Springs, Va.

While we approach this subject with an unaffected timidity, yet we realize that the subject has been seriously neglected. We shall add but little that is new on the subject, yet we hope that this review with what remarks we shall make will be a stimulus to our readers to investigate this subject purely scientific, and gather clinical data that will be of real value to the profession.

I am aware of the difficulties surrounding this question, and more especially since all the theories that have been put forth, and what we shall advance, are largely of a speculative character.

Theories without number have been advanced, but most of them are based upon some trivial observation and are not the result of close attention, careful consideration, diligent research and without arrogance as they should be to be worthy of recording in medical literature. If the true cause of how to determine the sex could be discovered it would result in a great boon to humanity. Hereditary habits, predispositions and diseases could be foretold and in many instances corrected, for we know that female children are less likely to become victims of the various hereditary taints than male children. We will now endeavor to set forth some of the theories advanced by which sex is said to be determined as briefly as possible.

If conception takes place in the dark of the moon, the child will be a boy. If in the light of the moon, it will be a girl. This theory is not worthy of any special consideration.

Another theory that saw the light and died almost immediately was, all eggs in one ovary are female eggs, and all in the other are male eggs. This theory took no hold upon the profession, only the mind of the originator saw anything in it, for it is well known that women with only one ovary have given birth to children of both sex.

A later doctrine advanced is as follows: If conception takes place during the last half of each monthly period, or before menstruation, the offspring will be a male; if in the first half or after menstruation, a girl will be the result. This theory perished almost as soon as advanced, because it was found that male as well as female children were the result of conception before and after the monthly period.

Another view advanced by some observers, and one that has some foundation is, if at the time of conception the sexual desire and passion is greater in the father the offspring will be a female, and *vice versa*. While some statistics were gathered in favor of this doctrine, yet it failed to be accepted because many women who have never experienced any pleasurable sensations during sexual congress, and have never at any time

shown any special passion, have given birth to both male and female children.

We now record a theory which is almost opposite the last, but which has been given more consideration by the profession. When the mother is mentally, physically and sexually in the ascendency the offspring will be a girl. When the father holds the supremacy in these attributes, males are the result. While in some families this rule holds true, yet we have observed that it fails as often in others.

A theory advanced lately seems to have less to recommend it to the profession than any we have seen. It is stated by its author as follows: If the age of the mother when conception takes place be an odd number of years, e. g., 21, 23, 25, etc., and she becomes pregnant during an odd month, e. g., March, May, etc., the offspring will be a male. Again, if her age be even years, e. g., 18, 20, 22, 24, and conception occurs on an even month, e. g., June, August, etc., the offspring will again be male. On the other hand, if her age in years be even and the month she conceives be odd a girl may be predicted, or if her age is uneven and the month even—female. Now to summarize. Likes, odd age and odd month—male. Even age and even month—male. Unlike, even age and odd month—female. Odd age and even month—female.

What nature can know of our conventional method of dividing time into years and months, and "likes and unlikes," is beyond our knowledge.

We will now review a theory that had quite a number of advocates when first advanced, and still has a few adherents. It was explained as follows: In the ovaries are found 7,000 to 30,000 ovules or eggs, which mature or ripen, from one to six at a time, once every twenty-eight days. One-half of these are said to be males, the other females. This ripening takes place alternately, first a male then a female. The rule is as follows: A young woman conceiving at her first menstruation will give birth to a male child; a girl if at the second; a boy if at her third, and so on. When conception takes place at the 25th menstruation the offspring will be a boy. Women who conceive on their 54th menstruation, will give birth to female children. The author of this theory explains twin pregnancy as follows: two eggs ripen at a time if the children are of different sex; if of the same sex, three eggs have ripened—one failing to become impregnated. If conception takes place at the next menstruation after giving birth to a male child, the offspring will be a female, and *vice versa*.

If this theory be true how can we account for this case: A lady had menstruated very irregular, from one to three times per year; gave birth to a female child; never menstruated again, but gave birth to four female children in a period of twelve years, yet there was no return of the function. This theory fails to explain the fact of a preponderance of male births in a region largely depopulated of males, and *vice versa*.

We now review a doctrine advocated by Hofacker and Sadler in 1828. They contended that when the father was older than the mother there were more sons; but when the mother was the older there would be most daughters.

Thury thinks that the time of fertilization is important, and that females result if ova are impregnated when freshly matured; males when impregnation is retarded. This view has many advocates, notably Slieder, Berner, Dusing, Giron, and others.

Another theory which has many believers and is one which furnishes at least a field for study, and is also backed by clinical data that should receive due consideration. It is that of relative potency of comparative vigor, according to which the most vigorous of the elements determine the production of its own sex.

Another doctrine, which is also worthy of careful consideration and has many points in its favor, is advanced by those who see the *vera causa* of sex in the nourishment of the developing young. Good nourishment is believed to promote the production of females; poor nourishment that of males. This theory has been very beautifully illustrated in the vegetable kingdom. The experiments made to prove the truthfulness of this doctrine in the animal world have been strongly in its favor.

Dusing, Yung and Giron favor this theory and have made many experiments to prove the same. That high feeding favors an increase of the percentage of females, and low feeding increases the males, is proved to a certain degree by Yung's experiments with tadpoles. His notes read as follows: Normal percentage, 57 females, 43 males. High nutrition, 92 " 8 "

Geddes expresses this principle in physiological terms of metabolism, "that anabolic (constructive) conditions produce females, while katabolic (destructive) conditions produce males.

Many other theories are recorded, but those we have reviewed cover them all to a certain degree, if not complete.

We have believed for several years, and our observations have strengthened our belief that the mother has it within her power to determine the sex of her offspring. This we believe she can and does do during the

early months of pregnancy. It is fairly well settled among scientific men that the mother molds the temperament, the disposition, the traits of character, the artistic taste and the talent of her child. If she can do all these why should she not influence the sex of her child? It is also a well known fact in embriology that for some time the developing fœtus is neither male or female; that up to a certain date of intrauterine life it is impossible to tell whether the "fold" is to give rise to an ovary or testicle; that the sex of the individual embryo is at first non-existent and is only to be determined during the course of development. We have not time or space to go further in the proof of this view, but in several instances have had the mother concentrate her will-power upon the sex she desired from the time she found herself pregnant until the time at least expired for full development of the sex, (she should keep the sex desired before her as much as possible,) and have only failed where the mother was not certain of her pregnancy until a late period of gestation. These experiments have only been few in number, and a "few swallows do not make a summer," but we believe the view is worthy of careful consideration.

We hope that this article will help a mite, at least, to break down the difficulties that surround this subject and will stimulate some one to nobler work along this line.

Galvanic Electricity for the General Practitioner.

By A. G. Servoss, M.D., Havana, Ills.

The day and age of the world when the desirability of the general practitioner using galvanic electricity would be questioned, having passed, it is needless for us to waste nerve force and printers ink to discuss this question, and it remains for us but to show him how he can avail himself of this useful remedy cheaply, effectively and with comfort to himself and patients; then and then only will the greater part of the profession take the matter up and find that they were indeed foolish to allow cases of their own to go to the specialist when they could, with honor to themselves and profit to their families, have relieved the case of urethral stricture, removed the stenosis of the uterine canal which was making life miserable for some poor woman, smoothed the face of some spinster from the unsightly moles, and stray hairs which had kept her single so long, or with one application permanently removed from the hand of some small boy who "had been chasing toads" the inevitable wart bloodlessly and almost painlessly.

My object in writing this paper is not so much to prove that galvanic electricity is a necessity as to show that it may be used with little cost, less inconvenience and a great deal of profit by any one willing to take the trouble to study the matter up and he will be richly rewarded, for it may convert the doctor, who has miles of riding to do every day, into one who does the greater part of his work in the office, a very desirable end to attain.

Let us make our start at the furniture store where we will purchase one of the enclosed washstands commonly called a commode; say at an expense of $5.00.

In the side generally used for the vessel let us place, to start with, 25 dry batteries costing 18 cents each, or $4.50 entire; these we will connect to each other, zinc of one battery to the carbon of the next, by short pieces of insulated copper wire which have been stripped of the insulating material for one-half inch on each end until all are connected together.

Then we will bore a hole through the back of the commode and run two wires, from the first carbon and last zinc, to a controller, or rheostat, placed on top of the commode, where they are connected with the binding posts marked Z and C or p us and minus respectively; this controller we can purchase for about $7.00, making our total expense for a galvanic cabinet battery in all $16.50.

Guided by the sensations of the patient alone we can do much good by this machine, but if really good work is to be done we also purchase a meter for measuring the amount of electricity used, then we can tell when working inside the cavities whether we are doing good or harm.

This meter is called a Mille-Ampere-Meter, because it measures the amperes used, and as in the medical uses of electricity we only use a fractional part of an ampere, and as the one-thousandth part is the fractional part best suited to our use, the word Mille is used; combined with Ampere we have the Mille-Ampere, then the instrument itself is called a meter, hence the whole word Mille-Ampere-Meter.

As we want a reliable instrument we had best pay not less than $15.00, for which we can purchase a first-class instrument reading up to 1-10 ampere of 100 milleamperes. Should we expect to take up electricity as a specialty it would be well to purchase an instrument reading up to $\frac{1}{4}$ or $\frac{1}{2}$ amperes, but such instruments are not necessary to

the country practitioner. He should not use batteries strong enough to produce this current through the body.

We have now increased our cost to $31.50, which has provided us with as complete an outfit as we could purchase for $150.00 if we were to purchase one of the ready-made galvanic cabinets from any standard company, and more than that we have put the machine together and know every crook and turn in it; by so doing we have inspired ourselves with confidence and gained the knowledge necessary to run it and not be compelled to send the machine to an electrician or have him come to it to make repairs.

We now want to know if we can get any electricity out of the cabinet and how much, if any, so we will connect one binding post of the controller to one post of the meter with insulated wire, then we will take one of the long conducting cords which we have with our faradic machine and connect it with the unused post of the controller and run it over to the unused post of the meter, thus we complete the circuit through which the current is to pass except where it is broken in the controller.

We are now ready to turn on the controller and as soon as this is done the meter should show that the current is passing. If it does not some of our work is not well done and we should again run it all over tighten up the connections and see that the circuit is complete.

Perhaps we will find that the meter works but points to the side that has no figures on. Should this be the case we will reverse the connections, that is connect the meter to the other binding post of the controller. A little faithful effort will soon show us how to make the machine work harmoniously in all its parts, by which time we are prepared to begin the real study of galvanic electricity and perhaps treat a case.

Earlier in the paper I spoke of using twenty-five cells. I did so for the reason that this is quite enough electricity for most purposes and I do not think it best for the beginner to run much chance of overdoing the matter. My own cabinet contains fifty cells.

You may ask me why I use dry cells. I will say first, that they are smaller and lighter than the liquid cells, they can be used in any position, lying on the side or standing on their heads, they never leak, do not cover the inside of your cabinet or the floor with fluid or salts, cannot be broken with any ordinary treatment, cannot be frozen and when not in use for several hours per day will furnish electricity in greater amount for a longer time than the liquid cells. The liquid cell wastes almost as much when not in use as it does in use, while the dry cell loses almost nothing when not in use.

I recently removed from my string a cell which had been in use almost daily for three years and it showed one-third of the strength it originally possessed. When they are exhausted you do not have to repair them but can purchase new ones for 18 cents each.

We now come to the question of electrodes, where I will say that you can spend many dollars and not satisfy yourself thoroughly, but I will endeavor to show you in a succeeding paper the essentials on this point. In the meantime you will do well to purchase some good work on medical electricity and study the case you are trying to treat thoroughly.

Should we desire to further increase the value of our galvanic cabinet we can add to it a case of lights, some with speculums attached and some for attaching to speculums, with which we can explore most of the cavities of the body. This set would cost us $10.00 or $12.00, and can be run by four of the cells which we already have on the circuit.

Then if you will purchase and add to the collection one high tension faradic coil you will have at your command an electric outfit capable of doing any and all work that can be done by electricity outside of cautery and static work, dependent, of course, on the number of cells you may choose to add.

But the knowledge necessary to make you a successful practitioner you can only obtain by hard study and careful experiment, and I would advise that your experiments be performed at first on your own person. You will have more respect for electricity and save your patients many a sudden shock which might do them no great harm but cause you to lose a good paying patient.

I would recommend, in closing, the following books on the subject as the very best which been brought to my notice, viz.: "The Treatment of Disease by Electric Currents," and "Elements of Correct Technique in Electro-Therapeutics," by S. H. Monell, M.D.

Bromidrosis Pedis.

By F. R. Millard, M.D., San Diego, Cal.

The over-burdened doctor may think it is adding insult to injury to add to the interminable list of remedies for this condition. But the very length of the list proves that

if the ideal remedy is known it is not universally known. The eminent German professor, who added formalin, is reported as having said of it: "Of course the odor will return, as it does after the use of every other remedy."

This is literally true, but it would be better to say, "will sometimes return." Because, sometimes the odor disappears never to return when no treatment has been instituted, and no treatment will prevent nature working a cure. This is not saying that all remedies that will destroy the odor are of equal value. All of the powders I have tried for it have required repeated and long continued use. For a good many years my faith was pinned to an aqueous solution of chromic acid. If properly used it will work a permanent cure in over 50 per cent. of cases.

For more than 20 years this prescription has proved its superiority over every thing tried:

℞. Corrosive sublimate, gr. xvi.
Limewater, ʒiv.
M. S. Shake well before using.

At night, after bathing and drying the feet, apply the yellow wash with a soft rag and allow it to dry. Apply in the morning without bathing. Repeat daily until all odor is gone, and then use at night only for a week, after which use at night once or twice a week until all of the wash has been used. If these directions are strictly followed, a permanent cure can be expected in at least 90 per cent. of cases.

I have never seen it intimated that the tendency to acquire this disease is inheritable. But it certainly is. I have never seen a patient having it who could positively assert that neither his father nor his grandfather had ever been affected in like manner. A Mr. T. was cured with the chromic acid in 1865. At the time he had two small boys. In 1885 the older applied for treatment, and in 1887 the younger, but neither of them knew that I had treated their father for a like condition.

I have known males of three successive generations to be affected. It is more likely to be transmitted through the male than through the female line. The daughter generally (not always) escapes, but may transmit it to her sons. Of this I have seen several instances.

Soon after I began independent practice my attention was directed to babies feet by a very wise old home-made midwife, who assured me that it was "a heap more trouble to keep down the footy smell in some babies than in others." I have called her wise, partly because she knew enough to keep her hand out of the woman's vagina, but more because she could tell better than I the stage of labor by an external examination. It was this that spurred me on to perfect myself in this branch of obstetrics.

In addition to what she told me, I learned that, as a rule, this extra trouble disappeared at an earlier age in boys than in girls, in whom if it persisted until menstruation became established, it then disappeard. But if in her after life menstruation becomes obstructed by some non-natural cause, she will be obliged to take extra care or her feet will be a nuisance both to herself and to her associates.

Saline Silliness.

The acme of foolish newspaper comment upon the use of saline solution in combating collapse was reached by an Associated Press telegram from Pana, Illinois, under date of January 24. This dispatch stated that an apparently dying woman had been brought back to life by the hypodermic injection of "a tablespoonful of warm salt water!" To avoid utter silliness, newspapers in self-protection should employ telegraphic editors who have been educated just a little in medical common-sense. Failing in this, they should refuse to publish dispatches of this character, which cannot fail to make them appear ridiculous to a large proportion of their readers. It would be very easy indeed for a newspaper editor, whenever an alleged "discovery" is announced, to consult an educated physician to learn its true character. The papers should learn that that they can never do any good to the community by propagating false stories, and that on the other hand they may do much harm and cause increased suffering by raising false hopes among the sick and their friends. Let us have some rational editing of medical news in the daily papers. —*Cleveland Med. Journal.*

Physician Kills Wife and Commits Suicide.

Dr. W. F. Aiken, of Savannah, Ga., an eye and ear specialist, shot and killed his wife on February 27th, and then shot and killed himself. Dr. Aiken, who was a graduate of Yale, was born in New York, and at one time was in the city health department. He was a man of considerable literary and scientific attainments, and is said to have been very successful in practice in Savannah. Dr. Aiken was thirty-six years of age.—*Record.*

The hot sitz bath is contraindicated in possible pregnancy.

THE

Charlotte Medical Journal.

Editorial Department.

E. C. REGISTER, M. D. J. C. MONTGOMERY, M D

Editors and Publishers.

No. 36 South Tryon Street, - - - -

- - - - - - - - - - Charlotte, N. C

SUBSCRIPTION. $2-50 PER YEAR,

At the approaching meeting of our State Society, the question of recognizing the license of the Virginia Medical Examining Board will be discussed. If the matter is not brought up by some one at some time during the meeting, in some shape, it will be the first time in many years. I hope the members of the old committee, who have been appointed and re-appointed so many times, and who have served so faithfully and so long, without accomplishing any thing, will be honorably discharged and no new ones appointed. I have never been in favor of interfering in any way with our almost perfect medical laws in North Carolina. There is no place in the world where medical legislation has attained a more practical and higher standard than here in our own beloved State, and I would hate very much to see any steps taken that would be likely to cripple it in any way. Why should we be more courteous to Virginia than South Carolina? They are both our neighbors and our friends alike, almost our relatives, and if we recognize the license of one State, why not both? If we were to accept the license of the South Carolina Board, where the graduates of a certain medical college receive license without an examination, it would be an injustice to other colleges, because the greater part of our young men would go to that college whose diploma would entitle them to a license without an extra examination and then the license from that State would have to be recognized in our State. Consequently the professors in that college would practically usurp the duties of our Board. If we were to enter into this agreement with the Virginia Board of Examiners and subsequently their college men persuaded their legislature to pass laws similar to those in South Carolina, what would be the outcome of it? It would certainly be disastrous so far as we are concerned. We would have laws, perfect and just, for other States to imitate, but we would have no use for them, no use for a Board of Examiners, all their work would be done in Richmond.

Another point that is rather a delicate one, and one I approach with a feeling of timidity, is the respective standards of the different Boards. During the past year the writer had an opportunity to make a comparison. One of our rejected candidates, and one who made the lowest general average in a large class of applicants, went to our Virginia neighbors, without additional training or preparation, and secured license.

Another point that is always brought up by the sympathizers of the scheme is the hardship it works on some of the old Virginia physicians who move to North Carolina to engage in practice. The strength of this argument is based on the assertion that a considerable number of this class of practitioners come to our State. This assertion has been made without the real facts in the case being known. I believe my associates will agree with me when I say that not one-tenth of one per cent. of our applicants ever practiced in Virginia. So you see we are trying to provide for something we don't need, and something surrounded and full of circumstances and conditions that are dangerous.

THE SPREAD OF VENEREAL DISEASES AND MEANS TO CHECK IT.

No one who has carefully considered and studied this class of diseases can fail to note that, in cities and towns at least, they are steadily on the increase. And students of sociology are agreed that one of the principal causes is that marriage is entered upon later in life than formerly, among the working and middle classes. Wherever marriage and the support of a family are made easy to young men, as in the country, there veneral diseases are at a minimum; but where, as in cities, economical conditions are such that early marriage becomes difficult, or impossible, and where, also, the young adults of both sexes are brought much and closely into personal contact, as in factories and boarding houses of the lower classes, there these diseases are at a maximum. Unfortunately there are no reliable statistics at hand, in this country, concerning the number of those who are ill with, or have suffered from some form of venereal disease, nor does there seem to be much effort made along these lines; consequently it is impossible to determine exactly how large a role these diseases play in the disabilities of labor, or how large a part of these affec-

tions may have been contracted by extra-genital and entirely innocent means; neither is there possible any exact study of the question of sterility, and hereditary disease. That a large number of the cases of syphilis are due to entirely innocent infection is indisputable. That by far the largest number of veneral infection, however, is due to intercourse with prostitutes, either public or secret, most authorities are agreed upon; but how to limit the powers for harm, of these individuals, is still a much-disputed question. That supervision of the prostitutes, in European cities, has not been entirely successful, is due, in all probability, chiefly to the fact that heretofore it has been a *police surveillance*. This fact has led to harshness toward and persecution of these women, and there fear of the police has served to defeat the aims of the authorities. Were this control a *sanitary measure* purely, and under the control of the *health authorities*, and freed from the semblances to oppression which mark it now; were there more chance for the infected to receive proper treatment in hospitals; were it made clear to society that, instead of looking upon all the sufferers as criminals it help them to a speedier cure (and by so doing protect itself), we should be a little nearer to a solution of this question. Certainly there should be some steps taken in this country, at least in the larger cities and the sea-ports, to limit the spread of venereal diseases, by the exercise of a *sanitary supervision*, just as we control other contagious diseases. Certain it is that pulpit invective, and police bribery and oppression will do no more to lessen these evils than they have done in the past. And the earlier that marriage is possible, the less will be the chance that venereal disease will be contracted.

RECENT ADVANCES IN GENITO-URINARY DIAGNOSIS.

In probably no branch in medicine, or surgery, have greater advances been made, in recent years, than in the study of the diseases of the genito-urinary tract. And in no part of this particular field is this truer than in diagnosis. The perfected endoscope has made the interior of the urethra easily accessible for inspection and treatment, and we are no longer forced to rely upon the cruder methods, which depended for their only partial accuracy upon the sense of touch. The prostate gland and its diseases, the bladder as also the adjacent organs, have been carefully and scientifically investigated, and this has led to the clearing up of many a previously obscure point in the diagnosis of blennorrhagic and other conditions. Probably no other simple factor has contributed so much to the advancement in this field, as the invention and perfection of the cystoscope, with its various modifications to permit of intra-vesical examination, and operative measures, in the unopened bladder, directly under the control of the eye of the operator. The differential diagnosis of the most obscure bladder diseases has become an easy matter; the possibility of determining whether pus, or blood in the urine have its origin in *bladder* or *kidneys*, and if in the latter, *in which*; whether vesical symptoms are due to inflammation, or to a foreign body, or new growth, and if so, the exact nature of the cause, have rendered much of the exploratory operating of former times entirely superfluous. One needs only to witness the extreme accuracy in the diagnosis of obscure renal cases possessed by the surgeons of the Hospital Necker, in Paris, and to note the certainty which their study with cystoscope and ureter-catheter give them, to feel that the next few years must give us even further and greater advances in the field of vesical and renal surgery, and enable us to save many of the cases which are now lost to us.

MODERN VIEWS ON THE TREATMENT OF GONORRHEA.

When Opie, the celebrated English painter, was once approached by an inquisitive questioner, who, wishing to learn the secret which gave him his wonderful results, asked: "How do you mix your colors!" The painter promptly answered: "With brains, sir." And that is the sum and substance of the modern treatment of gonorrhea.

The discovery of the gonococcus acquainted us with the *cause* of the disease; study of the biology of the germ, and the pathological changes it produces, make most of the *effects and complications* clear to us; lastly, chemical science and clinical study placed at our disposal agents which kill the gonococcus *wherever it can be reached*. The successes which were obtained by competent observers upon the use of the modern gonococcicides, led to their enthusiastic, but not always intelligent use, by those who were less competent, and a wave of reaction set in against them. So, recently was seen the rather distressing spectacle of one of the best known of American urologists, rising at a meeting of one of the most influential of American medical societies and, with all the assurance of bigotry, loudly proclaiming the unrelia-

bility of the modern methods, and pleading for a return to the old. But that the weight of testimony was overwhelmingly against him and his utterances was only another proof that, although the progress of science may at times be impeded, its truths must conquer over opposition in the end.

In order to achieve success, discriminating study of cause and effect is necessary. We know the cause, and have at our disposal means to remove it; provided that this cause can be reached. And just at this point we find the stumbling block which trips the less competent, or less observant. The *location* of the process is the crux. That once determined, and the disease treated with reference to the location of the foci of infection, and the rest is easy.

The modern silver salts, notably protargol, largin and argentanim will, if properly employed, cure an uncomplicated case of anterior gonorrhea in a very few days. If the infection persist, then there is, in all likelihood, an infection of the urethral glands, or lacuna, or the existence of periurethral sinuses. The existence, or nonexistence of these may be determined with the perfected endoscope, and, if present, they must be appropriately treated. If the process spread over to the posterior urethra, the condition of the prostate and the seminal vesicles must be determined, Competent observers have recently determined that, in over 90 per cent. of the cases of posterior urethritis, the prostate gland is diseased. It must be clear that no injections, or irrigations made with any agent whatsoever, can penetrate into the ducts and follicles of the prostate, or into the seminal vesicles. These are the points at which the gonococcus may lie dormant, for years even, to again light up an infection in the anterior urethra, upon slight provocation. Consequently the gonococcus must first be expelled from its lurking place by massage. Then, when it has been expressed into the urethra, by proper massage of the infected organ, it can be reached by our drugs and destroyed.

The treatment of the various systemic complications as surgical entities, rather than as metastatic foci of infection, can not be too strongly condemned. The *source* of the infection, the urethra, must first be treated; then the treatment of the metastases will be successful. Neglect of the urethral condition must result in disaster, for continuous re-infection from this point out, is sure to recur. The sooner the disease itself is cured the fewer and milder will be the complicating conditions, and the less-marked the resulting tissue-changes.

To sum up, the treatment of gonorrhea must be approached: "With brains, sir!"

THE MENTAL ELEMENT IN THE CAUSATION AND CURE OF DISEASE.

The mind plays an important part in the ætiology of many diseases and a full recognition of this fact has been of inestimable value in the treatment of diseases of mental origin.

One physician often meets with better success, in the treatment of his cases than another, from the fact that his presence, manner and words of hope inspire the patient with a state of mind calculated to assist the medicines in tiding over some crisis.

The prevalence of Christian Science today and other fads of a similar character, with the large number of reported cures, some of which are undoubtedly true, only illustrate the mind's influence in the treatment of many diseased conditions. It further shows that the physician should avail himself of this element as an adjuvant to his other treatment in all cases.

The educated physician knows when to use and how much to rely upon this psychic element, but the ordinary lay individual, without medical education, soon learns to look upon mental therapy as a penacea, and advocates its use for diphtheria, malaria and even the removal of cancerous growths.

A pill composed of the necessary medicinal agents, coated with hope and taken with confidence will produce *the best results* with the patient. The physician, therefore, should endeavor to cultivate the habit of using this valuable element in his daily practice, and after a time it will become a part of him and his success will be increased in many instances.

RAILROAD RATES TO DURHAM DURING THE N. C. MEDICAL SOCIETY MEETING.

Through the kindness of Mr. W. H. Fitzgerald, Commissioner of the Associated Railroads of Virginia and the Carolinas, the following rates for the round trip will be granted those attending the State Society meeting, May 21st, and the Board of Examiners meeting, May 16th, at Durham.

Tickets will be on sale May 15th and 16th, and May 20th and 21st, good until May 26th, continuous passage in each direction.

Tickets will be good over the Southern,

Atlantic Coast Line, S. C. and G. Extension, and the Seaboard Air Line:

Blacksburg,	$8.40
Charlotte,	6.50
Danville, Va.,	4.85
Fayetteville,	5.25
Forest City,	9.95
Gastonia,	7.15
Goldsboro,	3.65
Greensboro,	2.75
Henderson,	2.25
Hickory,	7.00
Lattimore,	9.50
Marion,	8.20
Maxton,	6.95
Mooresboro,	9.65
Newton,	6.70
Norfolk, Va.,	7.45
Raleigh,	1.50
Rural Hall,	4.65
Rutherfordton,	9.95
Sanford,	3.75
Selma,	2.75
Shelby,	9.05
Suffolk, Va.,	6.85
Wilmington,	7.70
Winston-Salem,	4.05

BOOK REVIEWS

A System of Practical Therapeutics. By Eminent American and Foreign Authorities. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics, Jefferson Medical College; Physician to Jefferson College Hospital, etc., Philadelphia. New (2d) Edition, Thoroughly Revised. In three very handsome octavo volumes, containing 2593 pages, with 427 engravings, and 26 full-colored plates. Per volume, cloth, $5.00, net; leather, $6.00, net; half morocco, $7.000, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1901.

In the February issue of this Journal will be found a review of the first volume of this excellent and useful work. This the second volume contains able practical sections on the following subjects:

Typhoid Fever (*new*). By H. A. Hare, M.D., Philadelphia.

Malarial Fever. By James M. Anders, M.D., L.L. D., Philadelphia.

Small-pox. By William M. Welsh, M. D., Philadelphia.

Varicella, Rubeola, Rubella, and Scarlatina (*new*). By J. P. Crozer Griffith, M.D., Philadelphia.

Yellow Fever (*uew*). By D. T. Laine, M.D., Havana.

Dengue (*new*. By J. W. McLaughlin, Galveston.

Acute Tonsilitis and Influenza, Acute Articular Rheumatism (*new*). By Frederick A. Packard, M.D., Philadephia.

Diphtheria (*new*). By Floyd M. Crandall, M.D., New York.

Spasmodic Croup and Rickets (*new*). By Floyd M. Crandall, M.D., New York.

Diseases of the Mucous Membrane of the Mouth, and Mumps (*new*). By Floyd M. Crandall, M.D., New York.

Pneumonia, Croupous and Catarrhal (*new*). By H. A. Hare, M.D., Philadelphia.

Asthma, Bronchitis and Whooping-Cough. By Norman Bridge, M.D., Chicago.

Acute and Chronic Organic Diseases of the Heart. By W. H. Thomson, M.D., L.L. D., New York.

Diseases of the Blood-Vessels. By Frederick C. Shattuck, M.D., Boston.

Nervous Diseases of the Heart. By Sir Lauder Brunton, M.D., D. Sc., L.L. D., Edin., L.L. D. Aberd., F.R.C.P., F.R.S., London.

Diseases of the Stomach. By Thomas G. Ashton, M.D., Philadelphia.

Diseases of the Liver, Gall-Bladder, Hepatic Duct, and Spleen (*new*). By John H. Musser, M.D., Philadelphia.

Diarrhœal Diseases and Dysentery. By W. W. Johnston, M.D., Washington.

The Intestinal Parasites. By H. A. Hare, M.D., Philadephia.

Diseases of the Kidneys. By N. S. Davis, Jr., M.D., Chicago.

Headaches and Neuralgia. By Wharton, Sinkler, M.D., Philadelphia.

The Drug-Habits. By F. X. Dercum, M.D., Philadelphia.

The Disorders of Sleep. By Hugh T. Patrick, M.D., Chicago.

Locomotor Ataxia, Acute Infantile Spinal Paralysis, Myelitis, and Amyotrophic Lateral Sclerosis. By M. Allen Starr, M.D., Ph. D., New York.

Apoplexy, Brain Tumor, Spinal Tumor, Meningitis, Cerebritis, and Neuritis. By Charles K. Mills, M.D., Philadelphia.

Spasmodic Affections of the Nervous System. By Joseph Collins, M.D., New York.

The Medical Treatment of Insanity. By H. M. Bannister, M.D., Kankakee, Ill.

Hospital Treatment of Insanity. By Edward N. Brush, M.D., Baltimore.

The Modern Treatment of Diseases of the Skin. By Henry W. Stelwagon, M. D., Philadelphia.

The names of the writers above are all well known, and each one has chosen a subject which he is thoroughly familiar thus making it both practical and useful. Every

page of this great work shows its practical character, and it is clearly seen that the editor and author have furnished exactly that aid for which every physician, and especially the general practitioner, seeks in times of doubt and anxiety. Very few physicians have the means or the opportunity to benefit by a long experience in a large hospital, nor can all practice in large cities where diseases of every kind come before them in every shape and form. This being an established fact, then the value of this work to the general practitioner can not be overestimated, giving as it does in careful detail the most recently accepted methods of treatment in the chief medical centers. This is a great work. It is a library within itself and the physician who reads these pages and applies the principles herein laid down will meet with success in his daily work. Lea Brothers & Co., have spaired no pains in issuing the work in a thoroughly up-to-date manner in every respect.

Pulmonary Consumption, Pneumonia, and Allied Diseases of the Lungs. By Thomas J. Mays, A.M., M.D.; Professor of Diseases of the Chest in the Philadelphia Polyclinic, &c.; Illustrated; New York. E. B. Treat & Co., 241-243 W 23rd St.

The author states in the preface that the fundamental concepts of this work may be formulated into the following propositions:

1. That pulmonary phthisis in the large majority of cases, is primarily, a neurosis, and that the pulmonary disentegration is secondary.

2. That any agent, influence, or condition which undermines the integrity of the nervous system will engender pulmonary phthisis, or some other form of pulmonary disorder.

3. That the only remedies of value in the treatment of pulmonary phthisis are those which appeal to, and act through, the nervous system.

4. That of special value in the treatment of phthisis is the counter-irritant action of silver nitrate introduced hyperdermically over the vagi in the neck.

5. That acute pneumonia, and other forms of acute pulmonary diseases, are closely affiliated with disorder of the nervous system.

Nearly the entire book is taken up with the consideration of pulmonary phthisis. This disease is described in its fullest and broadest sense. It is one of the most complete analysis of the subject that we have read in years. The chapters on pneumonia, bronchitis and pleurisy are well treated and very instructive. The author has made these diseases a life study and his writings clearly show his familiarity with them. He is master of his situation.

In appearance the work is a beautiful volume of 539 pages with a complete index.

A Text-Book of Opthalmology. By John W. Wright, A.M., M.D.; Second Edition; Thoroughly Revised, with 117 illustrations; Philadelphia, P. Blakiston's Son & Co., 1012 Walnut St., 1900. Price $3.00.

Most works written on this subject are designed for the skilled oculist and not for the student. In the work before us special attention has been paid to the student in his class work as well as for the general practitioner. The arrangement of the subjects has been made in keeping with the needs of the student. First the anatomy and physiology of the eye, then the diseases and their treatment in such natural order that the subject treated is designed to prepare him as well as possible at each recitation for that which follows. This, the second edition of this excellent work, places before the profession the latest and most improved treatment for many affections of the eye which usually come first to the attention of the general practitioner and which he may, as a rule, diagnose and treat to a successful issue. The principal affections referred to are the purulent ophthalmias, conjunctival granulations, corneal ulcer, interstitial keralitis, iritis and glaucoma, any of which, if neglected in the incipiency of the affection, often results in irremediable blindness. A very important feature of this work is the glossary, or rather a limited dictionary of not only all the terms used in this treatise, but are terms relating to the eye so far as it has been possible to gather them. The book contains nearly four hundred pages, is clearly printed and substantially bound.

Progressive Medicine; A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences; Edited by Hobart Armory Hare, M.D, Professor of Therapeutics and Materia Medica in the Jefferson Medical College; Philadelphia, &c., Assisted by H. R. M. Landis, M.D.; Vol. I March, 1901; Lea Brothers & Co., Phildelphia and New York.

Vol. I of the Series of 1901 keeps up the record as being one of the most valuable works published. The first 132 pages is from the pen of the renowned and lamented Dacosta, beginning with Goitre and closing with Iodiocy and Hydrocephalus. Among these subjects will be found interesting discussions on such subjects as Fractures of the Bones of the Nose, Cleft Palate, Tracheo-

tomy and a very entertaining section on the Chest. Acute Rheumatism, Croupus Pneumonia and Influenza are next treated by Frederick A. Packard, M. D. All that is new and is of scientific value concerning these subjects have been given by the writer.

Crandall's article on the Diseases of Children will interest every practitioner who seeks to keep up with the medical advance. Hektoen has an interesting and instructive chapter on Pathology. Logan Turner writes well upon the Various Affections Coming from Under the Section of Laryngology and Rhincology. Randolph closes the volume with a valuable article on Otology.

We commend this work highly to our readers and suggest by all means the continuous purchasing of the Series.

An Index of Symptoms as a Clue to Diagnosis. By Ralph Winnington Leftwich, M.D.; Late Assistant Physician to the East London Childrens' Hospital; Second Edition; London. Smith, Elder & Co., 15 Waterloo Place. 1901.

This is quite a new and novel book to the writer. It contains two hundred and sixty-seven pages and gives in a systematic and easily-understood manner almost every known symptom in one form or another. The symptoms have been well arranged and classified. If this work is properly studied it will save a great deal of time and labor to the physician in his diagnosis of disease. The symptoms have been given in large, clear, bold type with the diseases in which they occur immediately below. It is a convenient arrangement and we commend the work most favorably to our readers. It is printed in good style and well bound. The price of the book is 6 shillings—$1.50.

Orthopœdic Surgery, a Handbook. By Charles Bell Kutley, F.R.C.S.; London. Smith Elder & Co., 15 Waterloo Place, 1901.

This work contains over five hundred pages, and is most complete and up-to-date on the subject of Orthopœdic Surgery. Much improvement has taken place in this branch of surgery within the past ten years. All this progressiveness and improvements are clearly given in detail in this excellent work The chapters on Rickets and Infantile Paralysis are exceptionally interesting and practical. Many of the sections in the work were published several years ago in periodical literature, and are here re-edited—subjects on the Nature and Causes of Scoliosis, on Genu Valgum, and on Flat-Foot. Every chapter in this work upon the different subjects has been carefully and thoughtfully prepared. The work is certainly one much to be admired and consulted. The publishers are to be commended for the handsome appearance of the volume. The price of the book is 16 shillings—$4.00.

Fischer—Infant-Feeding in Health and Disease. A Modern Book on all Methods of Feeding. For Students, Practitioners and Nurses. By Louis Fischer, M.D., Attending Physician to the Childrens' Service of the New York German Poliklinik; Bacteriologist to St. Mark's Hospital; Professor of Diseases of Children in the New York School of Clinical Medicine; Attending Physician to the Childrens' Department of the West-side German Dispensary; Fellow of the New York Academy of Medicine, etc. Containing 52 Illustrations, with 16 Charts and Tables, Mostly Original. 368 pages, 5 3-4x8 inches. Neatly Bound in Extra Cloth. Price, $1.50, net. Delivered. F. A. Davis Company, Publishers. 1914-16 Cherry St., Philadelphia, Pa.

From a theoretical as well as a clinical standpoint the writer of this volume is eminently qualified for the task. He has mingled among children and lived among them till he is thoroughly familiar with the best methods of infant feeding. Every one recognizes the supreme importance of infant feeding. No one will deny that a great majority of deaths among infants is due to improper diet. You may from day to day try to impress upon mothers the importance of not giving babies any solid food; yet they will heedlessly feed them the ordinary diet and as a result either a diarrhœa or a poorly nourished child. In this work it teaches us that it is necessary for us to be familiar with the anatomy and physiology of the very young digestive tract. It teaches us that the infantile stomach is vertical and cylindrical and the fundus but little developed. It also teaches us that the mucous membrane of the mouth is practically dry at birth and the secretion of saliva very small. The author is very emphatic in regard to a wet nurse. He says that it is an established fact that the best possible food for an infant is breast milk. Where the mother of an infant is prevented from nursing her child, the next thing to be considered is wet-nursing.

Another important statement made by the writer is that when it is impossible to obtain a wet-nurse the next best thing is the best possible cow's milk from a reliable dairy. He advises the milk to be used *raw*. It is neither boiled, sterilized, nor pasteurized. Imitate nature as far as possible. Mother's milk is raw, therefore use good milk raw. There are many interesting features to this work. The different in-

fant's foods are given—forced feeding is considered.

An interesting chapter appears on modified milk. Just before the close of the work the writer thoughtfully gives a little attention to the subjects of Colic, Constipation, Rachitis, Teething, Athrepsia Infantum, &c. The field is a broad one and very important. The writer made himself very clear and practical.

It is a good work. It is neatly printed and well bound.

The Technique of Surgical Gynecology. By Prof. A. H. Goelet; Professor of Gynecology in the New York School of Clinical Medicine; Consulting Professor in Gynecological Electro-Therapeutics, International School of Correspondence, Scranton, Pa.; Fellow of the New York Academy of Medicine, and of the New York Obstetrical Society; Member of the American Medical Association, New York County Medical Association; Fellow of the Societe Francais d'Electro-Therapie, etc; 340 Pages, 150 Original Drawings, Bound in Cloth, Printed in white leaf. New York; International Journal of Surgery Co. 1901. Price $2.00.

Leaving out of consideration the element of personal skill, the success of a gynecological operation depends not only upon an accurate acquaintance with the technique, but also upon a thorough knowledge of the many details connected with the preparation of a case for operation and with the after-management.

On all these important points this book affords complete and explicit information. Commencing with the prepartion of the patient and of the field of operation the author discribes minutely the preparation of the operator, assistants, nurses, of the operating room, instruments, dressings, etc. Then follow detailed and clear descriptions of each operation illustrated with a profusion of original drawings and photographs which still further elucidate the text. The concluding chapters of the book are devoted to the no less important subject of the after-care of the patient. In view of the fact that this work contains a large amount of valuable information not to be found in the text-books on the diseases of women, it will serve as a practical guide to every one desirous of acquiring a knowledge of the technique of surgical gynecology.

Retinoscopy. By James Thornington, A.M., M.D.; Fourth Elition; Revised and Enlarged. Fifty-one Illustrations. Philadelphia. P. Blakiston's Son & Co., 1012 Walnut St. 1901.

This is the fourth edition of this work on Retinoscopy, and as in former editions it presents the facts to the reader in the same aspect which they bear to the author, as viewed in the light of his personal experience. In this edition the whole subject has been carefully gone over, new paragraphs added, and eight new illustrations have been inserted. The book is divided into six chapters and a good index.

We commend the work to all those who are interested in this test for the determination of refraction. The price of the work is $1.00.

Transactions of the Royal Academy of Medicine in Ireland. Vol. XVIII Edited by John B. Story, M B., F.R.C.S., General Secretary, Dublin. Fannin & Co., L.T.D. 1900.

These transactions make a very handsome volume of five hundred and twenty-eight pages. These are the most complete transactions that come to our table. They contain many handsome cuts and are well illustrated. Many of the articles are lengthy and up-to-date in thought and construction.

Transactions of the Iowa State Medical Society. Vol. XVIII. Forty-ninth Annual Session. 1909. Geo. C. Hubbs, Printer and Binder, Waterloo. Iowa.

We are always glad to get these transactions. They are very richly gotten up, clean in appearance and set in good type. The minutes are well prepared, giving each session from day to day in systematic form. The papers read at this meeting are numerous and very instructive.

LITERARY NOTES.

THE APRIL "NEW" LIPPINCOTT.—The April "New" Lippincott Magazine opens with a Complete Novel, as usual. This month it is a stirring detective story by Mrs. Scuyler Crowninshield, wife of Admiral Crowninshield, which keeps the reader guessing up to the final pages. "Mysterious Miss Dacres" is the title, and Josephine Dacres, the heroine, well deserves the designation. Among other things which puzzle her ladyship is Josephine's undeviating habit of walking on the grass beside the path,—never on the path itself,—but this is only one of many of peculiarities, though it is a straw in the wind which points in the right direction. With a good strong plot to start with, Mrs. Crowninshield makes the most of striking situations and plenty of humor through her diverting story.

Cyrus Townsend Brady's College Tale (fourth in the series) takes up the season-

able subject of hazing at Annapolis. It is called "A Hazing Interregnum," and is as full of sport and clever as anything which even this popular writer has published.

"The Enterprise of Flora," by Francis Gribble, a leading English author, is a really brilliant little romance which opens in a dancing academy and ends—where many romances do not,—but to mention the place would be to tell Mr. Gribble's story.

Adachi Kinnosuké, the American-Japanese who writes such beautiful love-tales of his native country, contributes "A Cherry-Bud in a Foreign Hand." This is an idyllic, pathetic story of a young Japanese girl named "O Tome" and an American artist, who together "fanned away two summers and were too much in love to think of marriage."

"The Last Sonata," by Clinton Dangerfield, is a story of gold-mining in the West, short but thrilling.

Of timely papers there are two: "Bees in Royal Bonnets," by Felix L. Oswald, M.D., a timely anecdotic article on the subject of Royal peculiarities, and "Our Village Improvement Society," by Eben E. Rexford, giving practical suggestions for bettering, by united effort, the appearance of out-door surroundings. Coming from this authority, such advice cannot fail to be helpful to those who are striving to make suburban life beautiful.

Charles G. D. Roberts contributes a charming April poem called "The Pipers of the Pools;" Madison Cawein a sonnet "The Bluebird;" Florence Earle Coates a glad welcome to spring called "Persephone;" and Edmund Vance Cooke, "The Final Choice."

The "Walnuts and Wine" department this month overflows with original matter in lighter vein, both of pose and verse.

Messrs. Lea Brothers & Co. have pleasure in announcing for early issue A Practical Treatise on the Blood and its Diseases, for Practitioners, Laboratory Workers and Students, by James Ewing, M.D., Professor of Pathology in Cornell University Medical College, New York.

This will be a handsome octavo volume of about 450 pages amply illustrated with plates and engravings.

In view of the recent rapid advances in the knowledge of the pathology of the blood, and the numerous and practical applications of this knowledge in clinical diagnosis, this book representing authoritatively as it does the most modern discoveries and achievements will no doubt meet with a warm welcome. The work aims to associate changes in the blood as closely as possible with lesions in the viscera thus immensely increasing its practical value and rendering it a work for constant daily reference in the routine of every general or special practitioner.

Industrial topics are prominent in the editorial discussion which occupies the opening pages of the April Review of Reviews. The editor's comments on the formation of the "billion-dollar" steel company, and on the threatened strike of the anthracite coal miners are pointed and instructive. There are also several suggestive paragraphs on the recent railroad consolidations, the question of government ownership in Canada, and modern transportation problems in general, including an exposition of the American canal policy.

It is said that the powers of either man or woman are developed five-fold by working with a life-companion who is in entire harmony. The ideal wife as a rule has it in her power to make the ideal husband. What constitutes the ideal wife is discussed in an extremely able article by Lavinia Hart in the April Cosmopolitan.

The leading feature of The Living Age for April 6,—the day before Easter—will be a striking and touching Easter story, "One of These Little Ones," by Princess Volkonski, translated from the Russian.

ABSTRACTS of One Hundred of the Leading Articles of the Month.

A Practical Way of Distinguishing Between the Human and Animal Blood.

Dr. L. Cheinisse, writing in the Medical Press and Circular upon this important subject, says:

For medico-legal purposes, MM. Wassermann and Schutze advise the following course to be pursued: After having rubbed down the stain in from 6 to 8 cc. of normal saline solution, and carefully filtered the liquid thus obtained, divide it into two equal portions, which are then put in sterilized test tubes. Then 0.5 cc. of the serum of a rabbit, which has received injections of human serum, is poured into one of the tubes; into the other tube, which serves as a control, there is added 0.5 cc. of the serum of a rabbit which has not been so treated. Lastly, a third tube, which also serves as a

control, is filled with 4 or 5 cc. of a dilution of the blood of a different kind of animal (sheep or pig, for example) to which is added 0.5 cc. of the antihæmatic serum used for the first tube. The three test tubes are then placed in a warm chamber with a temperature of about 37 deg. If in the space of an hour turbidity is perceived in the first tube followed by a precipitate, whilst the contents of the other tubes remains liquid, we may assert confidently that we are dealing with human blood, except in the very extraordinary event of there being reason to suspect that it may be the blood of a monkey.

Atrophic Rhinitis.

In the Journal of Ophthalmology, Otology and Laryngology, Seidlitz says there is no such thing as acute atrophic rhinitis. The diagnosis of acute rhinitis is readily made. There are three cardinal symptoms which distinguish it:

1. The abnormal patency of one or both nares; the mucous membrane is thinned and closely applied to all the parts. The submucous tissue disappears to a large extent. The substance of the turbinate bodies becomes partly or wholly disintegrated, so that at times mere skeleton outlines of them remain.

2. The presence of thick tenacious crusts within the cavity of the nose. The mucous membrane having lost many of its secreting glands, the secretion contains a greater proportion of solids than under normal conditions; thus it dries and forms these crusts, which are often difficult to dislodge.

3. A peculiar and offensive odor. The nares being abnormally open, the air passes through without being sufficiently moistened. The normal secretion in the post-nasal space dries quickly and decomposes. This is the cause of the odor, yet some of it must be due to the decomposing crusts within the nares.

The treatment consists in keeping the membrane free from crusts; what membrane remains should be stimulated to renewed activity. The odor should be removed. A cure of a long standing atrophic rhinitis is out of the question. We cannot hope to restore structures which have disappeared.

Anastomosis of the Ureters with the Intestine.

Reuben Peterson gives the following conclusions from an able article of his upon the above subject which appeared in the Journal of the A. M. A. for March:

1. The primary mortality of uretero-intestinal anastomosis, both in experimental work on animals and in man, is exceedingly high.

2. The best technique is that requiring the least amount of suturing of the ureters themselves.

3. All efforts to prevent ascending renal infection in animals or in man where the ureter has been implanted without its vesical orifice have proved futile.

4. It is impossible to determine in advance the extent of the infection which will result from uretero-intestinal anastomosis. The patient may die in a few days of a pyemia or in a short time of pyelonephritis, or in rare cases may recover from the infection, with resulting contracted kidneys.

5. Hence the operation is unjustifiable, either for the purpose of making the patient more comfortable, as in exstrophy of the bladder, vesico-vaginal or uretro-vaginal fistula, or for malignant disease of the bladder.

6. The results of uretero-intestinal anastomosis through the formation of vesico-rectal fistulæ have not been favorable up to the present time.

7. The success of Frank's experimental work in vesico-rectal anastomosis justifies the expectation that the future results of this operation will be more satisfactory.

8. The primary mortality of utero-trigono-intestinal anastomosis is low for an operation of this magnitude.

9. While it can not be denied that ascending renal infection may occur after this operation, the infection, as a rule, is of such a type that the chances of the individual's overcoming it are good.

10. Hence the operation of implanting the vesical flap with its ureteral orifices into the intestine is a justifiable surgical procedure.

11. There is no valve guarding the vesico-ureteral orifice; nor does the circular muscle layer of the ureter nor do the bladder muscles themselves act as a sphincter.

12. It has been abundantly demonstrated by experimental and clinical work, that the rectum tolerates the presence of urine and acts as a good substitute for the bladder, and that good control over the anal sphincter will be maintained.

A Few Observations on Cystitis, with Presentation of a Cystoscope.

J. M. Baldy, writing in the American Journal of Obstetrics, says that cystitis is supposed to be a very common disease. There is quite a distinction between irritation of the bladder and cystitis. True cystitis is a very rare disease. Cystitic

symptoms may show themselves from a nervous condition, from an irritation in the pelvis, in the vagina or the urethra. By the use of the cystoscope many supposed bladder diseases have been cleared up. The use of the cystoscope, however, is an exceedingly limited one, and much care and antiseptic precautions should be exercised in its use. The writer is in favor of the direct method of examination as being the best in comparison to the Seitze instrument. The writer asserts that cystitis in women is exceedingly rare; the use of the cystoscope very limited—as far as catheterizing the ureters is concerned, its use is almost *nil*, except for diagnostic purposes. The greatest amount of good done in the supposed cure of cystitis is in the dilitation of the urethra. Cystoscopic examination of the bladder in routine office work cannot be too severely criticised.

Atresia Auris Congenita.

According to the Journal of Laryngology, Rhinology and Otology, Hunter Tod, in a paper upon the above subject, comes to the following conclusions:

1. The deformity is not hereditary, and the cause is not known.

2. It occurs rather more often in females, and is more often unilateral than bilateral.

3. One may get accompanying deformities, chiefly due to mal-development of the parts in connection with the first and second branchial arches.

4. The labyrinth is rarely affected. The hearing varies, but is present to some extent, though slight. Hearing-tests gives practically the same results as those in an uncomplicated middle-ear affection, but more marked.

5. Embryological, pathological and clinical observations prove operations to be useless.

6. Something more, perhaps, can be done by careful non-operative treatment and by early and assiduous instruction in speaking and lip-reading.

The Abuse of the Poultice.

Thomas M. Paul, in a paper on the abuse of the poultice, says: There is no doubt but that a few years since results could be attained by the use of the poultice which were then considered satisfactory. It is clearly seen to-day that the poultice is really a culture medium which aids germs to grow and exert their pathogenic influences. It is very common to find people, and even physicians, treating boils and carbuncles, felons and wounds with the poultice. *This is almost inexcusable.* In a few instances, such as the separation of already formed sloughs—as in cases of gangrene or bed sores—the poultice is still of service, but this does not justify the indiscriminate application to a large variety of injuries.

The Body Temperature of the Goorkha Considered in Connection with a Predisposition to Pulmonary Phthisis.

According to the Indian Medical Gazette, N. P. O'G. Sâlor, M.B.B.cH., discussing this subject in a clear and instructive manner, sums up his considerations as follows:

I. *a*. The Goorkha has an abnormally low body temperature.
   b. This is most probably due to an abnormality of muscular metabolism.
   c. The abnormality can be reduced by the administration of sugar, which is a distinct and important food of muscle.

II. *a*. The Goorkha is predisposed constitutionally to pulmonary phthisis.
   b. In pulmonary phthisis muscular and fatty wasting are prominent clinical features.
   c. As far as pulmonary phthisis is concerned muscular and fatty waste may be considered together, inasmuch as one involves the other.
   d. In pulmonary phthisis there would seem to be a distinct need for sugar to repair muscular and fatty waste.

The case then stands in this way:

1. Individuals of a certain race exhibit two defined characteristics.
   1. A constitutional abnormality in health.
   2. A constitutional tendency to a specific disease.

II. There is a dietetic substance which, administered to such individuals in moderate amount, tends to correct the constitutional abnormality.

III. This dietetic substance seems to be specially called for as an adjunct to treatment, in cases of the specific disease.

In such a case as this, I think the inference is that there exists a relation between constitutional abnormality on the one hand, and predisposition to disease on the other, as far as the individual is concerned.

If these arguments be correct, the continued administration of sugar should be a constitutional prophylactic against pulmonary phthisis, not only in the case of the

Goorkha, but also in the case of predisposed individuals generally, and the administration of a dietary containing a large amount of sugar should be a valuable adjunct to the treatment of most cases of tubercle of the lung itself; at all events in the early stages of the disease when the digestive powers are still active. I hope later on to be able to add a further contribution concerning the subject of this investigation.

The Blood in Infancy and Childhood.

According to the Archives of Pediatrics Alfred Stengal, discussing this question, says:

In *hereditary syphilis* there is a more or less pronounced grade of anemia according to the severity of the symptoms. Usually the anemia is quite marked. In a careful study of the subject, in which Gundobin, Weiss, Monti and Berggrun, Bieganski and Engel are quoted, Loos arrives at the following conclusions:

1. Hereditary syphilis is accompanied by an anemia which under certain conditions may become very great.

2. The anemia is characterized by a decrease of erythrocytes with great degenerative changes (poikilocytosis) and especially the occurrence of microcytes and macrocytes, by the presence of polychromatophilia and nucleated erythrocytes which may be very numerous at times.

3. A leukocytosis at times reaching very high grades and showing a predominence of the small lymphocytes is usually seen.

4. The presence of myelocytes is noted.

5. Hemoglobin greatly decreased.

Concerning Operation in Cases of Perforation of a Typhoid Ulcer.

A most able article will be found in the Medical Record concerning this important subject. It has been discussed in a very comprehensible manner by A. A. Berg and he closes his article with the following conclusions:

1. The existence of typhoid fever does not contraindicate an operation; for typhoid patients bear operation almost as well as otherwise healthy individuals.

2. The repair of a ruptured typhoidal ulcer attended with extravasation should be undertaken as soon after the perforation as the patient can stand the necessary laparotomy and possible eventration.

3. Operation in the preperforative stage is not to be considered, for a local peritonitis does not always signify an impending perforation, nor does perforation always imply extravasation. As we have no means of foretelling which ulcers will perforate, an operation undertaken to forestall such a perforation is like putting out a fire that has not commenced to burn.

4. Extravasation can usually be early diagnosed if strict attention is paid to the recognition of the symptomatology.

Congenital Dislocation of the Shoulder, with Report of Two Cases.

Upon this subject Daniel W. Marston, in the Journal of Medicine and Science, states the following conclusions:

I. It is of the utmost importance to differentiate between cases of dislocation and true obstetrical paralysis.

II. The treatment of the former condition is immediate reduction; manipulation if possible; otherwise operative.

III. Every infant should be carefully examined at birth, for it is at this time that reduction is easiest performed.

IV. From the fact that a fracture of the glenoid cavity was found in three of Dr. Phelps' cases and that the history of nearly all cases shows difficult labor, I am led to believe these cases are not of paralytic origin but are due to traction, made in the axilla by the finger, or vectis. Paralysis may be coincident, but it can not be a primary factor in causing dislocation posteriorly.

V. The prognosis of the operative treatment is excellent. The earlier the operation the more hopeful the outlook.

VI. Like congenital dislocation of the hip, these cases of the shoulder are little benefitted by mechanical treatment.

Cytitis.

True cases of cystitis are very rare. There is a great deal of difference between cystitis and an irritation of the bladder.

William F. Waugh in the Alkaloidal Clinic says the bladder is to be treated with the utmost distrust. It is to be regarded as ready to fly into a furious inflammation at the slightest provocation.

Disinfect the bladder first by a week's use of hexamethylin-tetramine.

Have the patient urinate just before using the catheter to wash away microbes from the urethra.

Have your catheter well soaked in 2 per cent. formalin solution, then warmed and lubricated with Europhen-Aristol with Petrolatum. Have the fountain syringe and its tube washed out with 2 per cent. formalin solution.

Be sure no air can enter the bladder.

Have the catheter and solutions properly warmed.

Introduce the catheter with the utmost gentleness. If obstruction is encountered remove the catheter, fill a straight hard-rubber uterine syringe with the europhen oil, and passing the nozzle down the urethra to the obstruction fill the canal with the oil, and the catheter will pass readily.

Pass the catheter to the bladder but not into it. This is most important.

Saturated boric acid solution, hot water with hamamelis, one drop of dilute nitric acid to the ounce, five grains Protargol or two grains Argonin to the pint, are useful and soothing. Do not use toxic solutions or irritants in the bladder.

The Cystoscope in the Diagnosis of Diseases of the Genito-Urinary Tract.

The introduction of the cystoscope has been quite an advancement and help in the diagnosis of bladder and kidney diseases. J. W. Handly according to the Southern Practitioner says:

Since its introduction by Nitze in 1887, this delicate little instrument, by its kindly light, has aided in opening dark avenues and obscure recesses hitherto impossible to the genito-urinary surgeon, for lack of a clear insight into the affected parts; and so cleared and illuminated the way, that where we formally dwelt in doubt, now we can feel the strong arm of certainty; where our treatment was once expectant and often inappropriately applied, now the most radical measures can be adopted with a feeling of security that we are treating the exact organs affected, and not erroneously the one or the other, as heretofore our custom.

Some of the essentials necessary for intelligently using this instrument are: First, that the urethral calibre be of sufficient size to admit it without injury to the urethra so as to cause bleeding. The calibre must be from 22 to 24 millimetres in size, and its course must be straight. Second, the bladder must have the capacity of four to five ounces. Third, the fluid contained must be transparent, and remain so during the examination. Any deviation from the above essentials will obscure our examination, and necessitate bringing into requisition sounds and solutions to aid in obtaining the above.

Now as to some of the diseases of the bladder, ureters and kidneys, the diagnosis of which may be cleared by the aid of the cystoscope, we find central prostatic hypertrophy, carcinoma of prostate and bladder, vesical ulceration, vesical tumor, vesical calculus, free or encysted—cystitis, gonorrheal, tubercular or prostatic; inflammation around the ureteral orifices, ureteral calculi, sequel to nephrolithiasis, pyelitis or pyelonephritis.

A New Treatment for Tuberculous Glands of the Neck with Minimal Scarring, Involving a Method of Sterilizing a Tuberculous Region Through the Lymph Channels.

G. Belton Massey presents, in The Philadelphia Medical Journal, March 23d, an interesting paper upon the treatment of tuberculous glands of the neck. His method is the destruction of the bacilli by the cataphoric diffusion among them of nascent, oxychlorid of mercury, developed in their midst, by the electrolysis of metalic mercury held in contact with a small electrode. This method requires a small opening into the gland with a bistury under a chloride of ethel spray, a sliver of amalgamated zinc is thrust into the opening to act as an anode, of a weak galvanic current which is turned on and left for a few minutes to cauterize the tract and keep it patulous for proper treatment. When the tract has received a sufficient impregnation with the mixed oxychlorids of zinc and mercury thus developed to keep it patulous for a few days, the zinc electrode is withdrawn and an insulated gold electrode about the caliber of a piece of No. 18 wire is is inserted, its point having previously been amalgamated and made to hold as much mercury as possible. This instrument is left bare for 1-4 inch from the point only, in order that all the current action shall be expended within the gland, the remainder of the instrument being insulated with fused hard rubber or fused shellac. From 2 to 10 milliamperes is now turned on and maintained for 10 minutes, or until all the mercury has been dissipated from the gold surface, after which a piece of absorbent cotton or lint is placed over the opening, topped by a piece of plaster, and the patient returns at intervals of two or three days for a repetition of the application.

Two cases are given showing good results from this method. It is easy of manipulation; it is void of a great deal of pain, and the scar left is scarcely perceptible.

After-Treatment of Adenoid Growths in the Nasopharynx.

W. R. H. Stewart, in the British Medical Journal for March, says the number of recurrence after removal of adenoid growth in the nasopharynx is comparatively small; anything, however, which tends to reduce even this small percentage will I am sure be welcomed. For some time now I have

made my patients practice dumb-bell exercises for at least a quarter of an hour every day in front of a looking-glass, keeping the mouth firmly closed during the exercises and so forcing nasal breathing. I have found this very successful, for not only have my recurrences been lately practically *nil*, but the habit of breathing through the nose is quickly restored. This point is perhaps a little one. Sometimes, however, "a little means a lot."

Acute Diseases.

J. Mitchell Bruce, in the Settsomion Lectures, British Medical Journal, says: "For the man and woman of 40 and upwards, most of the acute specific fevers are affairs of the past. But the liability to several of them remains; and very unfortunately the liability to those acute specific processes which may attack the cardio-vascular system, influenza in particular, and less often typhoid fever, rheumatism, diphtheria, and pneumonia, as septicæmia of different forms or kinds which work havoc throughout the entire circulation."

Curetting the Urethra in the Treatment of Chronic Posterior Urethritis.

George Walker, in the Maryland Medical Journal, is very favorably impressed and has gotten satisfactory results from the use of the curette in posterior urethritis. Preparatory to the operation the urethra is thoroughly irrigated with a 1–4000 bichloride solution, and then a 4% solution cocaine is instilled and held five minutes. By illumination the diseased spot is localized. The curette is next applied and the portion in view thoroughly scraped, so that the diseased tissue at this place is thoroughly removed, and along with it the epithelial layer and submucous tissue if necessary. After this has been done a 10% solution of nitrate of silver is applied to the spot by means of a pledget of cotton. The bleeding is slight and the operation, where cocaine has been properly and freely used, is without pain. Often very obstinate and long standing cases have entirely cleared up after three curettments.

The Causation of Cancerous and other New Growths.

In a paper in the British Medical Journal before the Yale University Medical Alumni Association, J. George Adami offered the following conclusions. They are:

1. The katabolic activities of the cell are of two orders: those determining the relationship of the cell with the exterior, and those that are vegetative determining the continued existence and multiplication of the cell; the former excited by stimuli of various orders from without, the latter only indirectly so excited, being more directly called into play by conditions obtaining within the cell.

2. The controlling agency in at least the higher katabolic activities of the cell, both "functional" and "vegetative," is the nucleus, and nuclear activity is accompanied by breaking down and discharge, or by rearrangement of the nuclear molecules.

3. The changes which occur in the nucleus during the active performance of the specific functions of the cell are of a character so different from those observed during the process of cell division that proliferation and active performance of specific function, the one precluding the other, are obviously to a large extent incompatible. The cell engaged in the active performance of function in response to external stimulation cannot simultaneously proliferate.

4. It follows, therefore, that active cell division and cell proliferation occur only in conditions in which the cell cannot fully utilize the assimilated material (and the energy stored up in the assimilation of that material) in the performance of its specific functions.

5. Such conditions are to be met with where the tensions acting on the cell are reduced and certain energies which before were necessary to counteract opposing forces are freed and become thus capable of diversion from their purpose, or, again, where stimulation from without result in increased assimilation and storage of nuclear and cell material which now from any condition cannot be utilized in the performance of specific function.

6. In either case the cells will continue to proliferate so long as the primary modification of physical relationships or the primary stimulus continues to act, so long as there is adequate nutriment and so long as the tensions exerted upon the cells do not become excessive.

7. Provided that these conditions are observed, the greater the amount of cell proliferation, the greater the tendency for certain at least of the newly-formed cells to be projected from the relations proper to cells of the tissue giving them origin, the less will be the opportunity for such cells to carry on their primordial function, the greater the liability to proliferation.

8. The longer the cells are diverted from their proper extrinsic functions to prolifera-

tive activity, the greater the momentum acquired by them to continue performing the proliferative act until the functional activities become largely suspended and the "habit of growth" is set up.

9. When this habit of growth is inaugurated the cells can continue to grow and multiply in the complete absence of those conditions which initiated their proliferation in the first place, and we obtain that purposeless cell growth characteristic of the tumor.

10. According to the stage of cell development in which this habit becomes impressed upon the cell, so do we have the various grades of benign and malignant tumor formation.

Diabetes and its Treatment.

John P. Nolan, in the Chicago Medical Times, gives a rather novel treatment for diabetes. Those who believe the liver entirely at fault are in favor of using medicines which act upon that organ, as podophillin, taraxacum, &c.; while those who believe the medulla oblongata with the great sympathetic nerves are the seat of the disease advise the preparations of opium. The writer in his discussion has no faith in the efficacy of these drugs. He believes in feeding the patient and feeding well. He advises plenty of milk, hare soup and rabbit stews. Fresh peaches are highly recommended as having great curative powers. A pint of claret wine in 24 hours, rhus aromatica in twenty-drop doses and potassium bitartrate are the only medicines used. An interesting case is cited where a patient made rapid improvement under this treatment.

Chronic Gonorrhœa and Marriage.

There is no question in medicine about which there is more controversy than when it is proper and safe for a patient who has had gonorrhœa to marry. There is one fact, however, upon which all agree; namely, that the gonococcus must be destroyed in order to effect a cure. Ludwig Weiss, in a scientific article in the Record, asserts that as the method stands at present, there are two views current as regards chronic gonorrhœa and permission to marry. That of those who advocate the decision of the question on a purely clinical basis, and that of those who hold the opinion that only microscopical and bacteriological examination should be decisive. It is the old controvesy between Behrend, who adheres to the old astringent treatment of gonorrhœa, and Neisser, the founder of the microbic origin and etiological treatment of gonorrhœa with the silver salts. Behrend and his followers, Broeze, Schiller, Kromayer, and others maintain that "the demonstration of the gonococcus has a positive value only in those cases in which other clinical methods make its use superfluous, while in other cases the demonstration is so unreliable as to be valueless." In the face of the indubitably exhaustive microscopical and bacteriological researches of Neisser, Ernest Frank, Janet, Finger, and a host of other investigators, the contention of the former investigators is an untenable one. The aniseptic treatment of gonorrhœa, in connection with examination for gonococci, is without doubt the only rational method at present. It rests on exact scientific facts, and cannot be placed by a solely clinical aspect of the matter.

Double Operation for Undescended Testicles.

According to the Denver Medical Times, B. C. Brooke relates the case of a boy ten years of age with retention of both testicles, about an inch outside of the internal ring on either side. The patient had suffered from pain in the right inguinal region for about one year, radiating into the scrotum and down the thighs, also from vomiting and severe headache. An operation was advised and for the following reasons:

1. On account of the inflammatory condition of the right testicle, which required the child to remain away from school for a large part of the time.

2. On account of the complications that were liable to occur at any time, namely, hernia, inflammation and malignant degeneration, which in no way would add to the simplicity of the operation.

3. Any operation on a healthy child heals more readily than in adults and the testicles before maturity would more readily adapt themselves to the surrounding tissues.

4. Since after the sixth year it is rare for a testicle to reach its proper position in the scrotum spontaneously.

5. A testicle which is not in its proper position will not reach full development.

6. A misplaced testicle which is subject to such frequent inflammatory attacks that degeneration and atrophy would almost certainly take place if allowed to remain, and the patient left with the physical and mental attributes of the eunuch.

In this case the testicles will maintain their functions, namely, to control and determine the development of the characteristics of the male sex and to produce spermatozoa for the reproduction of the species.

Congenital Dislocation of the Shoulder, with Report of Two Cases of dislocation Posteriorly.

In discussing this branch of surgery, fortunately a part of surgery not very common, Daniel W. Marston, in the New York Medical Journal for March draws the following conclusions;

I. It is of the utmost importance to distinguish between cases of dislocation and true obstetrical paralysis.

II. The treatment of the former condition is immediate reduction; by manipulation if possible, otherwise, operative.

III. Every infant should be carefully examined at birth, for it is at this time that reduction is easiest performed.

IV. From the facts that a fracture of the glenoid cavity was found in three of Dr. Phelps's cases, and that the history of nearly all cases shows difficult labor, I am led to believe that these cases are not of paralytic origin, or due to non-development, as affirmed by Scudder, but are due to traction made in the axilla by the finger or vectis, or to the arm being caught in some unusual position and dislocated by the contraction of the uterus. Paralysis may be coincident, but it cannot be a primary factor in causing dislocation posteriorly.

V. The prognosis of the operative treatment is excellent. The earlier the operation the more hopeful the outlook.

VI. Like congenital dislocation of the hip, these cases of the shoulder are little benefitted by mechanical treatment.

Compulsory Notification of Tuberculosis.

There is no question of a doubt but that compulsory notification of tuberculosis is a step in the right direction. Chas. A. Cameron, C. B. M. D. F. R. C. P. and F. R. C. P. I. gives the advantages derived from such notification in the Medical Press as follows:

1. Useful information could be supplied verbally, or by means of printed leaflets, to patients and their families or associates dwelling in the house liable to sanitary inspection; the importance of keeping the affected persons as far as practicable from those who were in health could be indicated; the highly infectious nature of the sputa of the consumptives and the precautions to be taken as to disposal of them could be pointed out.

2. In the case of the poor, receptacles for sputa and materials for disinfecting them might be supplied by the Sanitary Authority.

3. Among the poor there is frequent change of residence. It very frequently occurs that rooms recently vacated by consumptives are immediately re-occupied without having previously been disinfected. This would not be possible if there were notification, for the Sanitary Authority would require the landlords to notify the vacation of rooms occupied by comsumptives.

A New Method of Treating Fractures.

Every one is familiar with the great advancement made in surgery during the past few years. There has been and is now an inclination to continue in the same old ruts in regard to treating fractures to a great extent. Leonard F. Hatch, writing in the Boston Medical and Surgical Journal March 28th, offers a new method of treament which is very simple and if properly carried out we should get perfect union where heretofore it has been often the reverse. The principle (a part of it old, but not followed generally, the other never having been used or advanced) is to convert all compound fractures into simple ones; the other is to operate on simple fractures, making them compound and then apply the first principle, making them simple.

There must be the most perfect antiseptic preparation, The site of operation must be shaved and then scrubbed thoroughly with soap and water, bichloride solution, and permanganate and oxalic acid solution; all other parts of the patient must be carefully covered with sterile sheets and towels. Hold the extremity in a vertical position for a few minutes, then apply a rubber constrictor. Fit a sterile posterior and anterior splint of any suitable material. The points of selection for incision are for the tibia along the crest, for the femur along the outer side of the thigh, for the radius behind the supinator longus, for the ulna along the ulna side of the arm where the bone is most superficial, for the humerus along the outer side of the arm. A good, free incision should be made, as it is important to have plenty of room, and the size of the incision does not complicate the case. Wash out thoroughly all clots and debris, removing all shreds of soft tissue and loose pieces of bone. If any sharp points of bone prevent perfect coaptation, remove them. Remove rubber band. Tie all bleeding points, and be sure that the wound is dry. If in case of a compound fracture the periosteum is stripped up, carefully replace it. Secure perfect coaptation. Apply one of the splints before closing the wound, to make sure of holding the fragments in place. Close the wound with cat-

got sutures without drainage, and lay a thin pad of iodoform gauze over the wound; apply the second splint and bandage quite firmly, as there will not be any swelling like that which occurs after a fracture treated in the usual manner. Remove dressings on the seventh or eighth day and apply plaster cast or ambulatory splint, according to the requirements of the case. It is safe to discontinue splints at least one week earlier than in fractures treated by former methods.

Deductions.—(1) With the advance made in modern surgery, where we do not hesitate to enter the abdominal or cranial cavities (in some cases, even, simply to establish a diagnosis), we surely should not be deterred from operating on fractures by fear of sepsis, and it certainly is unscientific to adopt a blind way when a better presents.

(2) It would be warranted if it did nothing more than to relieve the pain and swelling, which it certainly does.

(3) It shortens the repair process at least one week.

(4) It reduces the chances of deformity and non-union to a minimum.

The Early Diagnosis of Insanity.

Carlos F. McDonald very prettily portrays, in American Medicine for April, the distress and anguish of the family circle when one of its members falls a victim to this serious and farreaching disease.

He says it has been well said that there is no disease which on its first invasion of the family circle creates a profounder sense of distress and helplessness than that of insanity; nor is there one which is more likely to be mismanaged in the initial stage, the friends of its victim being unable usually to comprehend its importance or even to realize its presence; or realizing it, they are at a loss to know what course to pursue, and in their stress and anxiety they naturally turn to the family physician for advice and assistance. Then too, a considerable proportion of cases, especially among the wealthier classes, have to be treated at home for a time, particularly in the early and most important stage of the disease as regards its curability, while a certain number of cases may properly and safely be treated at home throughout the disease, provided they are in competent medical hands.

The Etiology of Yellow Fever.

W. Reed J. Carrall and A. Agramonte (Journal of the American Medical Association, Feb. 16, 1901) in the Medical Age for March, in an article on the etiology of this fever, have from their work drawn the following conclusions:

1. The mosquito, *C. fasciatus*, serves as the intermediate host for the parasite of yellow fever.

2. Yellow fever is transmitted to the non-immune individual by means of the bite of the mosquito that has previously fed on the blood of those sick with this disease.

3. An interval of about twelve days or more after contamination appears to be necessary before the mosquito is capable of conveying the infection.

4. The bite of the mosquito at an earlier period after contamination does not appear to confer any immunity against a subsequent attack.

5. Yellow fever can also be experimentally produced by the subcutaneous injection of blood taken from the general circulation during the first and second days of this disease.

6. An attack of yellow fever, produced by the bite of the mosquito, confers immunity against the subsequent injection of the blood of an individual suffering from the non-experimental form of this disease.

7. The period of incubation in thirteen cases of experimental yellow fever has varied from forty-one hours to five days and seventeen hours.

8. Yellow fever is not conveyed by fomites, and hence disinfection of articles of clothing, bedding, or merchandise, supposedly contaminated by contact with those sick with this disease, is unnecessary.

9. A house may be said to be infected with yellow fever only when there are present within its walls contaminated mosquitoes capable of conveying the parasite of this disease.

10. The spread of yellow fever can be most effectually controlled by measures directed to the destruction of mosquitoes and the protection of the sick against the bite of these insects.

11. While the mode of propagation of yellow fever has now been definitely determined, the specific cause of this disease remains to be discovered.

Effect of Alcohol on the Nervous System, the Mind and Heredity.

In an article in the Journal of the American Medical Association, March 23, Albert E. Sterne closes a very able paper on this subject in the following words:

In conclusion let me emphasize by repetition the import of the foregoing. As I frequently tell my students, "it is not the man who occasionally becomes intoxicated

who gets into trouble, but the man who drinks much and never gets drunk, or he who is nearly always drunk, that becomes a candidate for disease." His are the blood-vessels that early grow less elastic and more brittle, his are the chances for apoplexy and consequent infirmity, his are the weakened will-power and moral force, his are the nerve tissues that show slight vitality. His, again, are the offspring of stunted intellectual mold, who lack the ennobling qualities of men and women, but show to a marked degree the signs of mental and moral and physical degeneracy, which make them eacy victims of epilepsy, imbecility and idiocy on the one hand, and, on the other, gives them the inherited and acquired right to a birth in the insane hospitals, the jails and the penitentiaries.

If but the true import of the alcohol question were understood and a proper conception of the effect of alcohol on the physical and mental qualities were gained, I believe few generations would pass before we would find in place of our institutions for restraint and punishment, hospitals for care and cure of a class of patients more ill often than those whom we generally regard as sick or diseased.

Investigations on Uric Acid Diathesis.

Dr. Alto S. Binswanger, of Portland, Oregon, discussing this subject in the Medical Sentinel, says:

1. That uric acid is not the materia morbi in so-called uric acid lesions.

2. That uric acid acts pathologically only from a tendency to form concretions.

3. That its formation, far from being a process of auto-intoxication, is a process of disintoxication.

4. That the decrease in the excretions of uric acid observed in some morbid conditions, is not due to retention, but to non-formation.

5. That the materia peccans in so-called uric acid lesions are the alloxuric basis.

6. That in all so-called uric acid lesions we find an absolute increase over the normal of the sum of uric acid and alloxuric basis and that this finding is of diagnostic value.

Gastro-Jejunostomy—Murphy Button—for Cancer of the Pylorus.

A. H. Cordier, in the American Journal of Surgery and Gynecology, in a paper upon this subject, points out the merits and advantages of this operation in the following deductions:

Cancer of pylorus, even though removed, returns quickly, and always kills.

Pylorectomy is attended by a high mortality and is not justifiable surgical procedure in advanced carcinoma of the pylorus.

Gastrectasis due to a malignant closure of the pylorus is best treated by a gastro-jejunostomy. The operation as advised by Wolfler or Van Hacker best meets the indications.

It is not necessary to twist the bowel in making the anastomosis in order to prevent the bile from entering the stomach.

The anastomotic opening in the stomach should be at the most dependent point of the dilated organ.

The operation is attended by a low mortality.

In all cases in which marked dilatation of the stomach exists accompanied by emaciation, pain and invalidity the operation of gastro-jejunostomy should be performed.

The relief of pain, due to the effort of the stomach to relieve itself, follows this procedure at once.

The patient gains rapidly in weight and if non-malignant disease be present, his former good health is restored.

Enteric Fever in Childhood,

W. L. Stowell emphasizes the fact in an able paper, in the Archives of Pediatrics, that medicines to any extent are not needed in the treatment of this disease. Use care in ordering the diet during the illness and convalescence. Whether the nourishment is fluid or solid is not so important a consideration as whether the food will be digested and assimilated. Reserve heart stimulants and alcohol until actually needed, preserve the patient's strength and guide the disease you cannot stop.

Fibrinous Rhinitis.

Dr. J. M. Gill writing in the Indian Medical Record states that there exists considerable difference of opinion as to the cause of fibrinous rhinitis.

Lennox Brown describes nasal diphtheria as always an acute affection with grave prognosis, and contrasts it with fibrinous rhinitis in which "the membrane peels off without bleeding, glandular enlargement is absent, and culture and inoculation experiments give negative results." Walsham, while recognising mild nasal diphtheria, considers that true fibrinous rhinitis is a separate affection. Middlemas Hunt (British Medical Journal, July 9, 1898,) considers that the vast majority of cases of fibrinous rhinitis are due to Klebs Loffler bacillus, and that clinically, those due to this cannot be separated from those due to other causes. H. L. Lack (British Medical

Journal, October 12, 1898), considers fibrinous rhinitis as a clinical variety of diphtheria. De Havilland Hall, in "Allbutt's System," considers that the majority of cases of fibrinous rhinitis are due to diphtheria, though some are due to other causes. In view of the divergence of upinion existing on this subject, it seems advisable to record all cases in which a complete clinical and bacteriological examination has been made.

Mastoiditis. When does the Disease Begin and When Shall we Operate.

T. D. Tuttle states in the Denver Medical Times that mastoiditis is a much more common disease than usually admitted, and frequently is present without being detected. From the contents of his paper we draw the following conclusions:

1. In all cases of otitis media purulenta there is more or less involvement of the mastoid antrum.

2. In acute otitis media, with symptoms of mastoiditis, we are justified in using palliative measures for twenty-four hours.

3. To delay operative measures for more than twenty-four hours, without marked improvement, is not justifiable.

4. An incision in the postero-superior wall of the auditory canal is far superior to Wylde's incision as a depleting measure.

5. All cases of chronic otitis media purulenta resulting in mastoiditis should be operated on at the first appearance of symptoms without resorting to palliative measures.

6. We are justified in opening the antrum for drainage in cases of purulent otitis media of long standing without symptoms of mastoiditis.

Operative Management of Tubercular Hip-Joint Disease.

The following conclusions are drawn from an article in the Western Medical Review of March 15th, written by Dr. A. F. Jones of Omaha; viz.

I. The aim of our efforts is to be radical in the removal of all affected structures and the preservation of all healthy bone.

II. To preserve the greatest amount of healthy bone and consequently to insure the best possible joint function, makes early incision imperative.

III. To insure the best possible function means not only the early evacuation of intra-articular tubercular products, and removal of diseased structures, but implies a most thorough disinfection.

IV. The most effective disinfection method known to us at the present time is pure carbolic acid and alcohol. It forms one of the most useful adjuncts.

V. To insure the retention of the femoral extremity in the cotyloid cavity, which is necessary to insure good function, requires the greatest possible obliquity of the upper end of the bone. This can be done only by preserving as much of the neck as possible. Where a portion of the neck is destroyed or must be removed, a certain obliquity can be obtained by removal of the trochanter major.

VI. To insure permanent usefulness of the hip-joint, long continued mechanical correction by means of portable extension brace must be insisted upon.

VII. Excision of femoral head, neck, and trochanter must be avoided when possible.

Heat Melancholy.

The statement is made in the Indian Lancet by Dr. Andrew Davidson that suicides are most frequent in summer. Petit, as quoted by Lombard, established this for Paris on the basis of an examination of 38,205 cases collected during the decennium 1851–60. His figures give the following results:

Jan.	Feb.	March	April.	May	June.
862	881	1017	1136	1193	1311
July	Aug.	Sept.	Oct.	Nov.	Dec.
1231	1029	926	917	773	724

The monthly distribution of suicides in Italy for the thirteen years 1872–84 is very similar, viz.:

Jan.	Feb.	March	April	May	June.
1025	1109	1294	1527	1651	1718
July	Aug.	Sept.	Oct.	Nov.	Dec.
1625	1309	1021	1049	942	891

It will be seen from these figures that the maximum of suicides falls on the warm months, but does not coincide with the maximum temperature; for the warmest month is not June, which is the one most charged with suicides, but July and August, in the latter of which months the number of suicides has already fallen very considerably.

The cause of this is due to the extreme change of temperature temporarily upsetting the mental balance.

Oval Sepsis as a Cause of Disease.

According to the Indian Medical Record, Dr. William Hunter states that sepsis may arise from diseased conditions of the mouth in connection with a number of general in-

fective processes. This condition, though frequent, is apt to be overlooked.

He cites a case where a woman had suffered many months from severe gastric pain, sickness and nausea. This in appearance, would suggest cancer. The pain at times was very severe, and while the sickness usually occurred in the forenoon, it had no relation whatever to food. Her teeth were absent, except four stumps, from the sockets of three oozed pus on pressure. The symptoms being attributed to the continual swallowing of pus, the teeth were extracted and immediate improvement resulted, though not permanent. A severe attack of pain and vomiting soon occurred and lasted for three weeks, at the end of which time a specimen of the vomited matter was found to contain blood, fibrin, leucocytes, and gastric cells with masses of pyogenic organisms—streptococci and staphlococci—putting patient to bed and placing her on peptonized gruel, 1½ pints daily, counter irritation over the stomach, and the administration of a sedative with 3 grains of salicylic acid three times daily, improvement was immediate and permanent. Oral sepsis is a matter of much importance.

Nitrate of Silver and Other Salts of Silver in the Treatment of Inflammation of the Mucous Membrane of the Upper Respiratory Tract.

E. B. Gleason, writing in the Therapeutic Gazette, highly recommends nitrate of silver in tonsular and pharyngeal affections. He mentions several cases of tonsilitis and pharyngitis treated by first using a spray of peroxide of hydrogen, dissolving or ejecting the pseudo-membrane, then followed by an application of nitrate of silver, sixty grains to the ounce.

By using this treatment thrice on the first day, twice on the second day, and once on the third day, convalescence will usually be established. It is a very old remedy and a most reliable one.

The Local Use of the Normal Saline Solution.

The normal saline solution has long been used with success as an internal therapeutic agent. Every laparotomist is familiar with its use and its value as an intravenous, intrarectal and subcutaneous administration has been established beyond question. Its *local use* has received but scant attention, and it is to this use Frederick C. Taylor, in the Bulletin, calls attention.

Normal saline solution is said to correspond to the fluid portion of the blood—to be the ordinary pabulum of the corpuscles. The saline solution not only fills the collapsed vessels in case of excessive hemorrhage, for instance, and thereby relieves the overstrained heart, but stimulates the blood corpuscles and indirectly the nerve centers.

I have seen many times an unhealthy, necrotic surface, after twenty-four hours saturation in saline solution, change absolutely—the purulent discharge diminish—the unhealthy granulations assume the red hue of health and beginning cicatrization be most evident. The tissues rapidly absorb saline solution, hence greater care is required than in the employment of corrosive sublimate or similar chemicals in solution.

There is no danger of using too much, but rather the danger of using too little. The wound should be dressed in the ordinary manner—sterilized gauze next to the surface and over it a thick layer of cotton; this should be thoroughly saturated with saline and over all placed an impervious covering—oil-silk, rubber sheeting or something of that nature.

The discriminating use of the normal saline solution as a therapeutic agent will prove most satisfactory to both patient and surgeon.

Management of Difficult Breech Labors.

Dr. Adam H. Wright, writing in the Indian Medical Record, discusses this subject in its different stages. He says the dangers to the child in breech labors are fairly well known, but not always duly appreciated. It is stated that in most skilled hands probably 10% of the children are still-born. Herman states that in some charities 30% perish in delivery. In this presentation a certain amount of skill is an absolute necessity, otherwise your mortality will be even greater than 20%, or even 30%. This is a very serious matter and is far from creditable to the modern school of obstetricians. Place the patient across the bed on her back in the lithotomy or Walcher's position, for "in this way alone can proper assistance be rendered." Avoid traction on the child, if possible, because it generally causes extension of arms over the head, and frequently extension of the head itself. The patient should be anæsthetised before all the liquor annii has escaped. Pass up the hand with palm towards the child's abdomen, seize the anterior foot if possible. "By it we can more easily pull the child downward and backward through the superior strait." When the shoulders appear at vulva, pass two fingers along the most

easily accessible arm to the bend of the elbow, push it backward, and bring it across the face to the vulva, first the elbow then the hand. Do not press on humerus for fear of causing fracture. In the delivery of the after-coming head no time should be lost in removing the head from the vagina after the delivery of the shoulders. In using the Prague method you grasp the ankles with the right hand and place the left hand over the shoulders with the thumb and index fingers on one side of the neck and three fingers on the other side. Pull downward and backward until the head has entered the pelvis and then upward and forward, bringing the back of the child nearer to the mother's abdomen, as the face, chin first, slips over the perineum. The forceps are used when other means have failed. Should forceps traction fail and the child is dead, consider the further possiblity of damage to the soft parts of the mother, and use the perforator. This, however, is seldom necessary.

The Physical Examination of the Stomach.

According to the New York Medical Journal of March 23d, in a paper by Mark I. Knapp, upon the above subject, he says that the examination of the stomach has for its object to determine the physical, chemical and dynamical qualities of the organ. The physical examination has for its purpose to define the position, the size, the sensitiveness, and gross abnormal anatomical changes, if any; the chemical, the secretion; and the dynamical, the motility of the stomach. For the physical examination we use the ordinary means of physical diagnosis, for the chemical we employ certain reagents, and for the motility we use as a guide the relative time consumed by the stomach in emptying its contents into the duodenum.

The principal methods employed in the physical examination of the stomach are inspection, percussion, and palpation. The proper position of the patient during physical examination of the stomach is the recumbent one. In the examination by inspection often very little is accomplished—sometimes, though, it may prove valuable aid. Inspection should be made not only from a front view but looking at him from side and the back of his shoulders.

The method of percussion is equally as important as the other two. Percussion of the stomach has for its purpose to ascertain its dimensions and the quality of its contents. Percussion should be made when the stomach is empty and when filled, also, in a recumbent and standing posture. The most important and the most difficult of all the methods of physical examination is palpation. There is no law that will supplant the palpating fingers. We palpate for the following reasons:

For defining the size and position of the stomach and its relation to other organs, for evidence of pain, for gross pathological changes, and for tumors. In a thin-walled abdomen, especially in cases of thin, multiparous women with the condition known as *diastasis recti—i. e.*, divulsion, separation of the recti abdominis muscles—we may well be able to feel the greater curvature of the stomach. The greater curvature of the stomach may also be felt by the method known as sound palpation, which method consists in introducing a stomach-tube into the stomach and then feeding the tube through the abdominal walls, the tube, as frequently demonstrated, coursing along the greater curvature. It should not, however, be too hard to feed the greater curvature of a more or less empty stomach in patients with little adipose tissue. We very often may mistake the greater curvature for the lower border of a supposed ptotic liver, but percussion will help us out in showing tympanitic resonance of the same quality above and below; the hardness we do feel, and the flat note it gives on percussion is due to the necessary double thickness of the apposed walls of the viscus.

In addition to the above methods, inflation, sometimes sound palpation, and transillumination are employed.

Postoperative Pneumonia Complicated by Empyema, with Remarks on the Proper Treatment of this Condition

According to The Therapeutic Gazette, Philip Marvel, the following questions are suggested by his experience with a case of this character:

What is the probable percentage of postoperative pneumonia?

Should evacuation, by aspiration or by drainage, be recommended before resolution is complete?

Does the absence of the characteristic physical signs in pneumonia argue in favor of the inadequacy of said signs to accurately indicate the degree of danger in the disease. As to the first question the following deduction may be given that the difference of percentage given by various writers on postoperative pneumonia varies so widely that no percentage rate is as yet determineable, but that an estimate may be stated as ranging between .12 and .33 of one per cent., and the fatal cases between .01 and 09 of one per cent.

As to the second question, aspiration is not advised till the crisis has passed, unless the embarrassment to the breathing and circulation, or evidence of danger from the toxemia, should be such as to render relief imperative.

Referring to the third question, there is perhaps no disease which has more distinct and characteristic signs than pneumonia, and it is but natural that we look for, and to some extent rely upon, these physical evidences in forming an estimate of the gravity of a particular case of consolidation, which condition may be taken as the one sign pointing more particularly to the severity of an attack.

Though we may in many cases estimate the full area of consolidation present, we must still remain uncertain as to its import, for this area is necessarily less than the limit of that in which the toxin is being formed.

This statement is corroborated by referring to the words of Andrew H. Smith, of New York, who says:

"So long as the disease is advancing in the lung there will always be a zone outside of the consolidated area in which the amount of exudation in the air cells will not be sufficient to cause notable signs, but in which nevertheless an active formation of toxin is progressing. The slightest film of fibrin upon the wall of the vesicle will harbor a colony of pneumococci, whose toxin will be under the very best possible conditions for absorption. Unlike the fully filled alveoli, these vesicles will have an active circulation going on in their functional capilllaries, and the toxin as it is formed will be immediately taken into the circulation. The younger the organisms the more virulent is the poison formed by them, so that while cultures taken from the center of a consolidated area show little toxicity, those taken from the circumference of such a patch present the minimum of virulence."

The Fate of Ligatures in the Peritoneum.

In the course of an article on the fate of sponges, ligatures and other foreign bodies on the peritoneum, Carl Beck, in the International Journal of Surgery, draws the following conclusions:

1. Silk ligatures and sutures are not as harmless as universally regarded.

2. We should use, as much as possible, absorbable material.

3. If inabsorbable silk material is used, the thread should be small in size, as it takes much shorter time for such small ligature to pass through.

4. Interrupted sutures should be preferred to continuous sutures, as the latter take a very long time to slough out.

5. Symptoms arising from a buried suture must always be borne in mind, and eventually, if sloughing of a suture is suspected, a way should be opened for the thread so it may not take a dangerous route.

6. Some of the cases show that even absorbable sutures are subject to these laws, but in a monir degree.

Intravenous Saline Injections as a Valuable Adjunct in the Treatment of Shock.

A timely paper on this important subject will be found in the April issue of the New York Medical Times written by J. Hubley Schall. He says the results obtained impresses him with the fact that this subject deserves careful study.

It is well known that heat applied to the præcordium tends to stimulate cardiac muscular tone, and by so doing react on the central nervous system.

Such being the case, Dawburn suggested the idea that, to introduce hot salt-water directly into the blood-current would bring the heat immedately into the heart chamber, and thereby stimulate the heart and the respiratory center in the medulla.

This method not only stimulates the heart, but increases the volume of circulating fluid.

In carrying out the intravenous injections of saline solution, the following points should be considered: (*a*) The apparatus, (*b*) the solution, (*c*) the site of entrance, (*d*) the quantity, and, (*e*) the rapidity of the flow.

(*a* In instances where the proper apparatus is not at hand, an ordinary fountain syringe and hypodermic needle will suffice.

In this enlightened age no patient should be allowed to die from shock without an effort having been made to save him by means of a copious intervenous injection of a normal saline solution.

The Histology of the Urinary Tract in Its Relationship to Morbid Urinary Deposits.

G. Leslie Eastes writing in the British Medical Journal about the various subjects coming under this heading, says: "In the course of 6,000 microscopical examinations of urine from cases of nephritis, all of which were conducted on deposits obtained by centrifugalization, I have never been able to convince myself that I have seen the clear, flattened epithelial cells peculiar to the Malpighian corpuscles. I have, however, been able, I believe, to recognize the

granular rodded epithelium; not because it was possible to make out a rodded appearance of the cells, but because these cells have one other peculiarity, namely, that they are polygonal with somewhat extended processes, each cell dovetailing in a complicated manner with its neighbor. Such polygonal cells of the size natural to the epithelium in question are not uncommon in cases in which the history points to acute or subacute parenchymatous or tubal nephrits. They are always coarsely granular, but this feature is not peculiar to them, as in nearly all morbid deposits tubal cells, whatever their exact source, are granular, frequently possessing a very evident and, in proportion, somewhat large nucleus. The cubical or columnar epithelium of the latter parts of the tubules is not difficult to recognize and is the kind most commonly found when renal epithelium is present. This is only what we might expect on *a priori* grounds. For the lumen of the collecting tubules is wide enough to allow of the passage of isolated cells with ease, whereas the lumen of the loop of Henle and of the collecting tubules is so small that it is a matter for surprise that the epithelium, peculiar to those situations, when shed, is able to squeeze its way through. Frequently, however, the tubules become denuded more or less completely of their epithelum, and it is in just those diseases in which this is known to occur that the granular rodded epithelium is most frequently found. Thus it is found in the later stages of tubal nephritis, when the kidney has passed into the stage of "large white" or "small red," and when the tubucles are denuded of their lining."

Operative Treatment of Ugly Ears.

Dr. John B. Roberts, according to the Indian Medical Record, says that even within what may be termed physiological limits, great variation exists in the size and contour of the external ear. In the last few years a great improvement has taken place in correcting auricular deformities. It is intimated by a French author that all medical men should be cognizant of the possibilities of modern aseptic surgery, and be familiar with the fact that in given conditions operative relief is possible and perhaps imperative. This same argument holds good in unsightly conditions of the ears.

You will find some people who care very little about their personal appearance, and are not affected by the existence of a deformity, while others are very sensitive and even quite unhappy. It is wise, therefore, for all surgeons to study with some degree of earnestness the correction of auricular deformities. An injured or lacerated ear should be subjected to thorough sterilization and careful suturing so as to match its fellow. Fine silk is probably the best material to use.

After the removal of tumors or the correction of any injury to the ear, much skill can be displayed and exercised in restoring the symmetry of the two ears. Often when material is needed to replace lost tissue it is to be transferred from the neck or cheek, or transplanted from the hand, abdominal wall or thigh. It is sometimes necessary to alter the size and shape of the uninjured ear to obtain a proper correspondence with the one which has been subjected to a traumatic change.

Congenital nodules in the region of the ear, sometimes called supernumerary auricles, are to be excised. Very large ears may be reduced by excising a wedge-shaped piece from the central portion of the auricle and a horizontal strip outward from the centre of the convex margin of the crescent. Absent ears may be represented by celluloid properly tinted.

The proper and skillful correction of auricular deformities is a very interesting and important subject, and when successfully accomplished is gratifying both to the unfortunate bearing the disfigurement and to the surgeon.

Palatable Prescribing in Children.

Dr. Herman B. Sheffield, writing in the Indian Lancet, says that palatable prescribing is essential to success in the management of sick children. For drugs to be of benefit and do good the physician must see that the little patient not only takes them but retains those he prescribes.

Often times a mother in trying to administer nauseous and disgusting medicines make the cure by far worse than the disease. Sometimes actual injury has been done to children during forcible administration of medicine by its own mother, anxious to alleviate the suffering of her child. The mother is to be pardoned, but not the physician, for with the modern pharmaceutical adjuvants and some consideration for the feelings of the sick he is enabled to render the taking and giving of medicine a pleasure rather than a pain, or act of benevolence rather than an act of cruelty. With a little care and thoughtfulness on the part of the all powerful physician in prescribing the all healing medicines the most offensive in taste may be made at least acceptable.

Rheumatic Diathesis.

In the article by Cobb in the Clinique Moclagan develops the miasmatic theory and draws the following analogy between malarial and rheumatic fever:

"1. Malarial fever is irregular in type, and characterized by variations in its course. So is rheumatic fever.

"2. Profuse perspirations characterize the course of malarial fevers; so they do that of rhemuatic fever.

"3. During the course of malarial fevers the urine is loaded with urates; so it is in rheumatic fever.

"4. One attack of malarial fever seems to render the system more liable to its recurrence; the same is true of rheumatic fever.

"5. Malarial fevers often leave an impress on the system which renders the sufferer liable to disturbance and the recurrence of some of their symptoms from slight causes. Rheumatic fever often has the same effect.

"6. Unless arrested by treatment malarial fevers are apt to have a prostrated and uncertain course; so in rhenmatic fever.

"7. The course of malarial fever is speedily arrested by large doses of the cinchona compounds. The course of rheumatic fever is as speedily checked by large doses of the salicylics compounds.

"The poison which gives rise to malarial fever, and that which gives rise to rheumatic fever, are distinct and separate agencies; but the analogies noted in the natural history and course of the ailments which they respectively produce are sufficiently close to indicate the probability of their being allied in nature and in mode of action."

The Reduction of the Alkalinity of the Blood in Certain Pathological Conditions.

In a paper in the Therapeuctic Gazette, R. Wernigk mentions a large number of pathological conditions in which the alkalinity of the blood is reduced.

1. In all anemias, pernicious and simple, and leukemia.

2. In most fevers, except those complicated by cyanosis and dyspnea.

3. In all cachexias.

4. In toxic conditions of the blood, as uremia, diabetes, nephritis, hepatic disease, carcinoma, and in poisoning with carbon monoxide and phosphorus.

5. In chronic rheumatism, lithemia, and gout (not in acute articular rheumatism), and scurvy—in fact, in nearly all chronic conditions in which we have blood changes. Excessive exercise also diminishes it.

A neutral or much diminished alkalinity of the blood is said to have been observed in cholera, sunstroke, and apoplexy. The alkalinity of the blood is lower in women and children than in men, and increases directly after a cold bath and after meals.

Midwifery Practice 100 Years Ago Compared with the Conditions which Obtain at the Present Day.

The article in the March issue of the Medical Press, by Peter Horrocks, upon the above subject is full of interest.

It was advised in those days to press strongly against the child's head when it began to distend the perineum, particularly when the woman was "urging down" with her voluntary forces. The vectis and forceps were in great use. Craniotomy was much commoner than now and was performed by means of scissors or a perforator. Cæserean section was invariably fatal to the mother. Abortion was treated by bleeding. Extra uterine fœtation was treated on the expectant plan. It was left alone, and poultices applied to try and bring any abscess that formed to a head. In those times a "husband could not be arrested during his wife's pregnancy"; that a chiid was legitimate if born within twelve months of the death or absence of the husband. Cancer of the uterus was treated by cupping glasses to the back, injections of a decoction of camomile with hemlock or opium. Fibroids were called tubercles, and were treated on the "antiphlogistic" plan. What have we to-day? The introduction of chloroform, the craniotomy forceps and the chephalotribe, the abandonment of venesection, the discovery of albuminuria in eclampsia, and Credes' method of managing the third stage of labor.

The greatest discovery has been made in asepsis. To-day Cæserean section can be done with almost perfect safety to both mother and child. Ovariotomy and hysterectomy have been rendered possible with an extremely low mortality, owing to the evolution of asepsis.

The External Examination of the Eye.

According to the Medical Press and Circular, Dr. Percy Flemming says that in ophthalmic practice, as in all other departments of medicine and surgery, it is of the greatest importance to have a definite and systematic method of examining cases. Only by perusing such a method in all cases

can one guard against the fault of omiting to notice some important physical sign, and one becomes more and more convinced that the mistakes that are made in practice rather from neglecting to observe some point than from misenterpreting other factors in the case which have been quite accurately noted.

The examination of an eye case falls into three divisions; first, the examination of the exterior parts of the eye, including the lids and neighboring parts, as well as the eyeball itself; next, the examination of the patient's visual acuity, and finally, the examination by artificial light with a lens and with the opthalmoscope. In examining the lids first we are to look for skin afflictions such as herpes. Eczematous eruptions are also very common and easily recognized.

As regards the lids, one would notice the presence of ptosis, the functional activity of the orbiculoris, as shown by the ability to close the eyes tightly, and the size of the palpebral fissure.

The next stept is to examine the palpebral and ocular conjunctiva. This is usually quite easy, but often in children the lids may be so tightly closed that it is quite difficult to separate them.

The cornea is next to be examined. This is best done by putting the patient in front of a window and noting whether the image of the latter formed on the cornea is in all positions quite sharp and bright and not broken or blurred. In this way, the next region to be examined is the anterior chamber and the points to be noted are its depths and contents. The depths is estimated by looking at the eye from the side and then from in front, and observing how far the iris is separated from the cornea. As regards contents, one looks particularly for blood and pus. The iris must be examined with reference to its color, its lustre, its thickness, and its steadiness or movement of the eyes. In examining the pupil one must notice its size and the different reactions from stimulation. In testing the reaction of the pupil it should be remembered that with advancing age the pupils tend to become smaller and less active.

The Mal-Treatment of Malarial Fevers and Its Consequences.

Dr. Bhoobun Mohun Sircar, according to the Indian Medical Gazette, discusses the Mal-Treatment of Malarial Fevers. This fever first manifested itself in a town by the name of Jessore of Bengal some three-quarters of a century ago and played sad havoc in that flourishing town. There have from time to time been many and various theories advanced as to the cause of these fevers, and much has been done to improve the sanitary condition of these fever-stricken districts. The great remedy used both by the people and the profession for these fevers is quinine. It is used in all its forms and stages to check the fever and prevent its recurrence. There is no question about quinine when properly and systematically used being the ideal treatment. There are some people who cannot employ a physician being in such impoverished condition, as a result preparations of patent medicines are resorted to and used for days without a doctor's advice. It is an established fact that quinine is the staple ingredient of these medicines combined with iron, purgatives and vegetable tonics. In this way the injurious practice of mixing quinine, Epsom salts, iron and other ingredients, all in one mixture and allowing the same to be used in all stages of malarial fevers, both acute and chronic, has become very common and is much to be deprecated.

The difference in the physiological actions of these different drugs and their respective effects on the system in the different stages of the disease are altogether overlooked. Their indiscriminate use has thus given rise to serious consequences. In the acute stage of fever with high temperature, iron acts as a poison; it suppresses the secretions, constipates the bowels and brings on congestion of the liver, spleen, kidneys and other organs. But at the same time it is one of the best tonics we have, in improving the blood and renovating the system when administered in the chronic stage when there is little or no fever. In treating a case of fever, surely no qualified physician will prescribe iron in its hot stage with thirst, scanty high-colored urine, constipation, foul tongue and the more or less irritated condition of other organs, nor until the fever has left and the patient has become convalescent. But in using these patent medicines, the patients are obliged to take iron along with quinine and its other ingredients from the beginning of the fever, irrespective of its injurious action in the hot stage or until it has left. On account of its repeated use in that condition in every relapse which is so frequent, the liver and spleen become congested and enlarged, other organs become deranged, the condition of the patient becomes weak and anæmic, and anasarca, cachexia, and other fatal symptoms gradually supervene terminating in death. In the same way Epsom salts or any other similar purgative, which may do good in the first state of the fever

by clearing the bowels, by its unavoidable continuance for days together till the bottle is finished, gradually brings on diarrhœa, dysentery and other complications.

Such is the insidious way in which these patent medicines are sapping the vitality of the fever-stricken people of this country, augmenting their sufferings and hastening their death. I think it is high time that the public attention should be called to this lamentable state of things, with a view to bring about a change in the policy, principle of preparation and the mode of administration of these medicines. The first and simple improvement suggested would be to separate the medicines according to their respective modes of action, instead of combining all in one mixture, and secondly, to administer them separately according to their indications in the different stages of the disease. Such an innovation on approved principles will be a boon to the country, and every effort should be made and encouragement given to its adoption.

Syphilis and Marriage.

This is a question that has never been satisfactorily and entirely settled. Among many questions asked and answered in an article by B. B. Foster, in the Journal of Medicine and Science, quoting from White and Masten, he says:

The prevalence of acquired syphilis, the frequency with which it is transmitted, the severity of its lesions, and its crippling, deforming, and often fatal effects when it is inherited, make questions pertaining to the marriage of syphilitics of cardinal importance. Opinions upon this subject should be clear and decided.

1. That syphilis is most apt to be inherited from parents who at the time of conception are in their first year of the disease. The aptitude is greatest when both parents are syphilitic, is slightly less when the mother alone is affected, and is diminished more than half when the father alone is affected.

2. That the tendency towards heredity becomes rapidly less from the first to the third year, and after the fourth year is rarely manifested.

3. That time, in conjunction with vigorous continued specific treatment, so affects the tendency to heredity that after the fourth year it is practically brought to the vanishing point.

4. That time and vigorous treatment combined cannot always prevent the transmission of syphilis by heredity. The instances in which such transmission has occurred after four years, in spite of active treatment, are, however, so few that they properly can be rejected in considering syphilis and marriage.

The logical deduction from the foregoing summary is that men who have had syphilis which has been treated carefully for four years, can marry and will have healthy children. When the woman is syphilitic, or both the man and woman have contracted syphilis, it would be safer to avoid conception till after a longer period.

Signs and Symptoms of Bubonic, Pneumonic and Septicæmic Plague.

In the Indian Medical Record of recent date, James Cautlie, M.B., F.R.C.S., discusses the different types of plague. He mentions the Bubonic, the Pneumonic and the Septicæmic as the three leading types, and under one of these types all cases of plague can be grouped.

In speaking of Bubonic plague one naturally and almost invariably associates the occurrence of buboes with the disease. While it is an established fact that it may run its course without either buboes or even enlarged glands appearing. The bubonic variety has always formed no less than 70 per cent. of the cases of plague met with in every epidemic since it first made its appearance in Hong-Kong in 1894. It is stated that in many outbreaks almost every case develops buboes, but in others, one in every three cases is non-bubonic in character. The most potent agent in the spread of plague is undoubtedly contact with persons suffering from the disease. Plague spreads from one member of a household to another, and from one house to another in a neighborhood in which it prevails, with a tenacity and persistency which indicates a "house infection."

Infection by way of the alimentary canal would seem possible and probable, but there is no direct proof that either food or water serve to convey plague to human beings. The rat, in common with some other animals, is subject to plague, and the mortal ty amongst them has been high. Not a few observers claim that it is the vermin inhabiting the coat of the rat that convey the infection to man. It will be seen from the above statement that the exact method by which human beings become exposed to plague is not definitely known.

During an epidemic of plague in Bombay, Childe observed that concomitantly with the increase of mortality from bubonic plague deaths from pneumonia multiply *pari passu*.

The glands, in septicæmic plague, over the whole body are congested and swollen

in most instances to only a small extent, but in one group and frequently in one gland of the group adenitis has advanced considerably. There are no buboes, but a gland may be seen as big as a hazel-nut here and there, When cut into, the glands are pink in color and of a firm, rather tough consistence; but in some of the larger sized localized areas softening occur. The visceral engorgement and congestion with petechiæ and subendothelial and submucous hæmorrhages are features in septicæmic plague in common with all other varieties of the disease.

Suture Materials.

Robt. A. Campbell, in the Pacific Coast Journal of Homeopathy, says that in considering the materials used at the present time for sutures we need only mention four: Catgut, silkworm, silkworm gut and silver wire. Silk and catgut are the materials in general use. Silk is permanent and requires removal, while catgut is temporary and is absorbed by the tissues. Silk has been the most universal suture material because of its cheapness and the simplicity with which it can be sterilized. During the past few years, however, catgut has become the most popular and generally used. In fact it is considered the ideal suture.

Small Doses and Dose Enough.

Under a most amusing and interesting subject entitled Practical Hints from Daily Experience, by W. C. Abbott, in the Alkaloidal Clinic, he gives some valuable suggestions under the heading of Important Tips:

1. The value of small doses of tincture of aconite frequently repeated in the treatment of amygdalitis and in the initial stage of febrile diseases.

2. The value of painting the chest and back with liquor iodi fortis—diluted, if necessary, with an equal quantity of the tincture—in all cases attended with cough.

3. The value of a pill of exsiccated ferrous sulphate in conjunction with the administration of purgatives in the treatment of anemia.

4. The value of grain-doses of grey powder with an equal quantity of Dover's powder from three to six times a day in the treatment of syphilis.

5. The value of large doses of the iodides in the treatment of tertiary syphilis.

6. The value of large doses of bromide of potassium in the treatment of the "heats and flushes" and other symptoms from which women suffer about the time of the menopause.

7. The value of large doses of quinine in the treatment of supraorbital neuralgia, and in the periodical febrile disturbances from which old malarial patients suffer.

8. The value of 5 grn. of butyl-chloral hydrate with 1-200 grn. of gelsemin in neuralgia of the fifth nerve.

9. The value of small doses of a saturated solution of camphor in alcohol in the treatment of autumnal or choleraic diarrhea.

10. The value of small doses of perchloride of mercury in the treatment of infantile diarrhea when the stools are green, slimy, and offensive.

11. The value of sulphide of calcium in doses of 1-10 grn. in the treatment of boils, carbuncles, and abscesses.

12. The value of nitroglycerin and nitrite of amyl in the treatment of angina pectoris and allied conditions.

Some General Causes of Inebriety.

T. D. Crathers, writing in the California Medical Journal, is of the opinion that all cases of inebriety may be traced to four general division of causes. One called constitutional and inherited, the other from organic disease, the third from injury, and the fourth from functional disorder associated with exhaustion. Beyond this, certain general causes are apparent which should enter into the study of every case. First, what is the physical grade or level of the individual, and what is his mental capacity or intellectual and moral strength? Does he belong to a degenerating family, or one growing and rising to higher levels?

Some Proofs that Vaccination Prevents and Mitigates Smallpox.

1. That it diminishes the liability to be attacked by the disease.

2. That it modifies the character of the disease, and renders it (a) less fatal and (b) of a milder or less severe type.

3. That the protection it affords against attacks of the disease is greatest during the years immediately succeeding the operation of vaccination. It is impossible to fix with precision the length of this period of highest protection. Though not in all cases the same, if a period is to be fixed, it might, we think, fairly be said to cover in general a period of nine or ten years.

4. That after the lapse of the period of highest protective potency, the efficacy of vaccination to protect against attack rapidly diminishes, but that it is still considerable

in the next quinquennium, and possibly never altogether ceases.

5. That its power to modify the character of the disease is also greatest in the period in which its power to protect from attack is greatest, but that its power thus to modify the disease does not diminish as rapidly as its protective influence against attacks, and its efficacy during the later periods of life to modify the disease is still very considerable.

6. That revaccination restores the protection which lapse of time has diminished, but the evidence shows that this protection again diminishes; and that, to insure the highest degree of protection which vaccination can give, the operation should be at intervals repeated.

7. That the beneficial effects of vaccination are most experienced by those in whose case it has been most thorough.

Sleeplessness in Heart Disease and its Treatment.

Inability to sleep should always demand the care and attention of the physician to his patient. C. C. Gibbes, writing in the Kansas City Medical Record, says that the treatment that is specially required to prevent the recurrence of sleeplessness in heart disease may be summed up thus:

1. Correct as much as poosible any con stitutional tendency to sleeplessness.

2. Minimize as much as possible the correct amount of work required of the heart.

3. Improve the tone of the heart muscle.

4. Treat complications as they arise.

The Treatment of Prolapse of the Uterus.

In the Medical Press and Circular, Dr. Fred. Bowseman Jessett says that with respect to treament it is obvious that our first object must be to return the displaced organ to its normal position, and then to adopt means to retain it in position. Among the palliative measures mentioned are massage, which has the repute in many cases of being of great service. There are some who have very little faith in massage as a remedial agent in this trouble. All of those who have used this method seems to be agreed upon that while it may lessen the frequency of surgical treatment, yet it is tedious, not quickly learnt, and that the application requires long fingers, a supple hand, muscular activity and dexterity, and inexhaustible patience. Another method of treating this condition is to pack the vagina after reduction with cotton wool or marine lint, the cotton wool being soaked in glycerine or glycerine and ichthyol; the object of this is to support the uterus in position, and by pressure to prevent absorption of inflammatory deposits.

Surgical treatment should be resorted to in all cases where procedentia is complete, and is much better than the use of pessaries The following are the main objects to be attained:

1. The state of the cervix uteri should be carefully examined, and where there is much hypertrophy amputation of the cervix should be practiced with a view of lessening the weight of the organ and facilitating its complete reduction. At the same time the cavity of the uterus should be curetted.

2. The perenium, vulva and vaginal walls should be examined, and such operation as appears necessary for the restoring of these points of support should be carried out.

3. The shortening of the ligaments that suspend the uterus and which have become weakened and lengthened.

4. Hysteropexy either through the vagina or abdomen.

5. Hysterectomy.

The Treatment of Various Longstanding Sexual and Urinary Symptoms in the Male.

Fallen Cabot, in the Indian Medical Record, says the importance of determining the existing cause of various obscure sexual and urinary symptoms cannot be overestimated. In citing several cases he demonstrates very clearly the importance of making an examination by a rational method of procedure. In making an examination he proceeds as follows:

1. I believe it is best to allow the patient to tell his own story; then, by careful questioning on the part of the physician, further knowledge of his condition may be gained.

2. The patient should completely expose the external genital organs.

3. If a urethral discharge is present, a small portion of it is taken on a clean cover glass for microscopical examination.

4. The testicles and external genital organs should be carefully examined for past and present disease.

5. The urine should be passed into two beakers, and its relative cloudiness and the presence of threads carefully noted. The urine should be tested in many cases for albumin and sugar, and an examination of the urinary sediment is frequently indicated.

6. A rectal examination should then be made to determine the state of the seminal

vesicles, prostate, and Cowper's glands. This should be done in every case.

7. In acute processes no urethral examination should be made. This holds good also in cases of acute inflammation of the seminal vesicles, prostate, and Cowper's glands.

It is shown that diseased states of the prostate, seminal vesicles and Cowper's glands are not always produced by gonococcus, but various bacteria, such as the streptococcus, staphylococcus, tubercle bacilli are also often found to be the cause. In a case of enlarged prostate with all the numerous and unpleasant symptoms concomitant his treatment consisted in soothing the local condition by internal medication, using diuretics and urotropin, and advising the use of daily rectal irrigations. The acute symptoms soon subsided, and massage of the prostate every five days was practised. In the course of a few months the patient made a good recovery.

The Treatment of Impotence.

Prof. E. Mendel, of Berlin, discussing the treatment of Impotence in the Indian Lancet, says: "There are two kinds of impotence in man, viz: Impotentia generandi and impotentia calundi. As regards the first—the incapability of producing offspring—the reason for this may be either in the want of seminal fluid (aspermatism), or in the want of spermatozoa in the ejaculated fluid (zoospermia). The writer turns his attention more fully to impotentia calundi, that is the incapability of carrying out coitus in the normal manner.

1. Impotence may be due to changes existing in the peripheric sexual apparatus of its immediate surroundings—that is, mechanical impotence. To this class belong swellings of the testicles (hydrocele), of the penis, elephantiasis arabum, phimosis, large inguinal hernias, diseased changes of the erectile tissues, which may be of a traumatic, gonorrhœal, or syphilitic nature. As a mechanical impediment, excessive obesity may also be considered. Here should also be mentioned the mechanical impediments which prevent coitus present in the female (rigid hymen, atresia of the vagina).

2. An excessive irritation of the sensory tract sometimes produced too frequent erection and pollution, thereby becoming the cause of diminished power, due to foreign bodies in the bladder from gonorrhœa, &c. Particularly, however, as an important point regarding impotence, to be discussed later on, should be mentioned the often-repeated irritation of the glans penis, due to masturbation. On the other hand, anæsthesia in those attacks may favor impotence, as, for instance in impotence due to tabes, in which anæsthetic parts are present on the penis, scrotum, &c.

3. Neurotic processes in the tracts may lead to a disturbance or supension of erection and ejaculation. To this may be due the often-observed impotence in diabetes, Bright's disease, and alcoholism, although it should not be excluded that in those contions it may be due to the direct affection of the reflex centres without any disease of the peripheric nerves.

4. In the large majority of cases of impotence it is a question of paralysis or irritable weakness of the sexual centres of the spinal cord.

Coitus should be prohibited from at least six months in the treatment of impotence due to irritable weakness.

The next important point is regulating the diet, forbidding any kind of alcoholics, nicotine, all stimulating drinks and limitation of food containing nitrogen to one meal. Galvanism is highly recommended over the lumbar segment of the spine. The careful employment of cold water treatment may also be of use. Weir-Mitchell's treatment, with rest in bed may be resorted to often with marked benefit. In the majority of cases an improvement of the potency takes place with an improvement in the general condition. Among the drugs recommended for this impotence due to irritable weakness, phosphorus in pill or in cod-liver oil, strychnine with phosphoric acid are the most prominent. Cocaine should be avoided for fear the patient may become a subject of cocainism. We cannot deny the utility of drugs in many instances, but we must not expect too much from them. Patients afflicted with impotence due to irritable weakness should not be advised to marry. Cure them first and they can marry afterwards.

The Rheumatic Diathesis.

According to the Clinique Jno. B. Cobb writing, discussing this subject, gives the following readable conclusions:

1. The trend of modern thought puts acute rheumatism among the infectious diseases.

2. The specific cause has not been demonstrated; there may be several; mixed infection is possible.

3. The route of invasion is probably through the mucous membranes. The tonsils, the pharynx and the intestinal mucosa are each credited with opening the door to invasion.

4. Lactic acid is the result of muscle met-

abolism and is a phenomenon and not a cause of the disease.

5. The neurotic theory of rheumatism does not explain the ever present toxemia.

6. The rheumatic diathesis is not a pathological entity, but it is included in the imperfectly understood term lithemia.

7. The rheumatic inflammation attacks fibrous tissue which is engaged in regulating and controlling motion.

8. Endocarditis and myocarditis are integral parts of the disease and are its most serious manifestations.

9. Chorea is a manifestation of rheumatism; the rheumatic infection may select the nerve or nerve centers of voluntary muscles for its sole expression.

The Treatment of Appendicitis.

W. J. Walsham, in the Medical Press and Circular for March, submits the following propositions in reference to this familiar disease:

1. In all cases of ordinary so-called catarrhal appendicitis, that is the ordinary form of appendicitis formerly known as peri-typhilitis, &c., it is better to allow the acute stage to subside, provided the symptoms are acute running a favorable course under medical treatment, and then, whether it be a first or a subsequent attack, to remove the appendix.

2. In the acute gangrenous and perforating varieties no time should be lost in medical treatment, but the abdomen should be opened immediately, the appendix removed, and disinfection employed before the whole peritoneal cavity has become implicated, whilst, should the general peritoneum have already become extensively infected, nothing but the most drastic methods hold out any great prospect of success.

3. That, should a localised abscess have formed in the region of the appendix, an early incision should be made and the greatest care exercised lest, in opening the abscess, the general peritoneum be infected by the breaking down of the delicate adhesions shutting off the pus from that cavity.

4. That the removal of the appendix during a quiet interval is a perfectly safe operation, and frees the patient from all subsequent risk.

Concluding his paper he gives his reasons for advising the removal of the appendix in all cases:

1. That recurrences after a first attack are probably much more common than they have been stated to be.

2. That the pathological condition of the appendix even after a mild attack is such as constitutes a continual source of danger, and at any time, (months or even years) may suddenly set up the most instense mischief.

3. That no one can tell the actual condition the appendix may be in.

4. That a concretion may be gradually forming and may suddenly terminate in perforation.

5. That adhesions may lead to such a a bending of the organ on itself that gangrene may supervene at any moment.

6. That a grave source of constant worry and anxiety to an intelligent patient is removed.

7. That appendicectomy, performed with proper care and precautions, is a perfectly safe operation.

The Treatment of Puerperal Eclampsia by Morphine.

It is interesting to note the different methods of treating this disease. Dr. George Elder, of Nottingham, in the British Medical Journal, says:

A disease which kills 30 per cent. of the mothers, and those usually taken from the young and the healthy, and 50 per cent. of the children is one which must always have an urgent claim upon our attention, more especially as, in spite of all that has been written and said upon the subject during the last fifty years, we are still very much in the dark as to its nature, its causation, or even its treatment. We know it is due to some form of auto-intoxication, and that in the vast majority of cases this follows upon renal insufficiency either as an expression of a passing congestion or organic disease; still, this leaves a goodly number of cases unexplained.

The late Dr. Angus MacDonald pithily said that there might be albumen in the urine without eclampsia, eclampsia without albumen, and eclampsia with albumen. It was pointed out long ago by Trousseau that high-strung, excitable women are more predisposed to this disease than others. What is needed in this disease is prophylaxis. If the urine of pregnant women was examined at short intervals from the fourth month to the end of pregnancy, many valuable lives would be saved. By putting the patient upon a milk diet, as recommended by Forriur, combined with other measures for stimulating the functions of the skin, the kidneys and the bowels would, in a vast majority of instances, oviate the necessity of even considering the question of the destruction of fœtal life by the premature induction of labor. However, when

a physician is suddenly brought face to face with a patient in convulsions, whether these be before, during, or after labor, no remedy is so quickly and certainly sedative as morphine hypodermically administered.

The Treatment of Burns in Infancy and Childhood.

In a paper in Pediatrics for March, Charles Warren Allen says that when more than one-third of the cutaneous covering is involved in a severe burn the outlook is unfavorable. Aromatic spts. of ammonia is highly recommended to meet the indications of vital depression. Unless the child is too young for the drug to be used at all, opium in doses proportionate to the age may be employed until a quieting effect upon the system has been secured. Picric acid, as a local application, in a one-per cent. watery solution has the effect of giving almost immediate relief from pain and healing takes places rapidly under its use. It is best not to remove the dressing next to the skin, but simply wet this with picric acid and apply your absorbent cotton over this. By not changing the inner layer of dressing the pain is greatly diminished and the danger of outside infection is greatly reduced Iodoform is objectionable both from its odor and the danger of iodoform dermotitis. A permanent bath offers one of the best means of securing comfort in the deeper and more extensive burns.

For soothing purposes the old carron oil is the best known and the most extensively used. The most important point in the treatment of these conditions is to refrain from the removal of the dressing.

The Treatment of Nasal Polypus.

At a recent meeting of the Laryngological Society of London this subject was discussed at great length in the Laryngoscope. Cresswell Barber said the treatment resolved itself into two stages (1) Removal of the growths (2) After-treatment with the view to preventing their recurrence.

It is pretty generally agreed this should be carried out with a snare, hot or cold. I am always in the habit of using the cold snare, and with a rather thick steel wire. I have repeatedly made up my mind to use the galvanic loop, but have always, after a short trial, come back to the cold, chiefly because I find no special advantages from the hot, and considerably more trouble in using it. My own practice is to snare out the growths as carefully as possible at sittings about a fornight's interval, even removing small roots in the middle meatus by this method. The adjustment of the snare when a somewhat thick steel wire is used scarcely ever meets with any difficulty, but in the event of such an occurrence the polypi may be drawn forwards with a sharp hook or a fine pair of catch forceps.

In getting the loop round a polypus projecting through the choana a finger in the naso-pharynx is of course invaluable, and if it be impossible to secure a polypus in this position, by this method, Lange's blunt hook may be used, or if necessary, a pair of forceps guided by the finger. The use of forceps for the removal of polypi is not, in the ordinary way, to be recommended.

(2). After-treatment. The routine after-treatment hitherto adopted consists in burning the so-called roots of the polypi with the galvanic cautery. This method is only suitable for cases in which the point of origin of the growths is visible, for to plunge a cautery blindly into the interstices of the ethmoid bone seems to me a useless and dangerous proceeding. The same remark applies, perhaps with the less effect, to the use of a chemical caustic, such as chromic acid. It has been my habit for some years to use a spray of rectified spirit as first recommended by Miller), varying from 25 per cent. to full strength, for its shrinking properties on the mucous membrane, and I think with benefit.

The Treatment of Gonorrhœa with Frequent Irrigations of Hot Decinormal Salt Solution.

Dr. Charles E. Woodruff, writing in the Medical Record on this important subject, says that the positive knowledge gained in the last two decades of the disasters and deaths due to gonorrhœa and the great length of time during which the gonococcus can remain quiescent in the tissues, has resulted in a feverish search for remedies and methods of quick, sure cure. Every year some new remedy comes forth as a panacea for this disease and the public is bewildered at their multiplicity, and watching the eager manner in which the physician receives them, he draws his conclusions that none are entirely satisfactory and the methods used half a century ago result in as much good as the newer ones of to-day.

The germicidal properties of silver nitrate, argonin, argentomin, protorgal, and largin seem to have lessened the duration of treatment and in the hands of some surgeons seem to accomplish all that could be desired. Jules Janet and Valentine are prominent exponents of irrigation methods, by this method affecting a rapid cure. These rapid cures are often not cures

at all, the infection existing in latent state liable to show itself months and even years later. A great many surgeons consider freedom from complications of far more importance than short duration of treatment. Gross taught his students that seven weeks was a short time in which to recover from an attack of gonorrhœa. In using the modern irrigation method it is stated that the normal salt solution is the most soothing and beneficial remedy that can be used. It is best to use these irrigations every hour, though excellent results will follow from two or three hours interval. Given carefully by the surgeon the discharge should cease in ten days. In concluding his article, Dr. Woodruff says that "there is no use in trying the above treatment unless one is sure that the patient is properly instructed, and really does wash out the urethra, and not the mere end for an inch or two. Soldiers are exceedingly ingenious in doing it the wrong way and delaying recovery. I find a simple, short glass tube is a good enough nozzle, and each patient should have one, which he should sterilize after use, at the same time he sterilizes his hands, solutions being kept on hand for the purpose."

Surgical Resources in Intestinal Obstruction.

Charles Leslie Rumsey, in the Hahnemannian Monthly, concludes his paper as follows:

1. The surgeon should be called in consultation the moment that any abdominal symptoms indicative of possible perforation are observed.

2. If it is possible to determine the existence of the pre-perforative stage, exploratory operation should be done under cocaine anesthesia before perforation, shock and sepsis have occurred.

3, After perforation has occurred, operation should be done at the earliest possible moment.

4. We wait till the primary shock, if any is present, has subsided.

5. The profession at large must be aroused to the possibility of a cure in nearly, if not quite, one-third of the cases of perforation, provided speedy surgical aid is invoked.

Choosing a Climate and Home-Site.

A few deductions are drawn from observation and established data, which appear in the Dietetic and Hygienic Gazette. They are as follows:

1. To be salubrious a climate should be dry rather than moist. Even excessive dryness is preferable to excessive moisture. It is better to dry up and blow away than to drown.

2. Except in a small minority of cases, excessive warmth or extreme equability are neither of them specially desirable. This contravenes popular belief, but some decided alternations of heat and cold, without sudden or severe transitions to either, are favorable to the maintenance of the fighting tone and vital equipoise of the human organism.

3. For those in normal health the question of altitude may be practically ignored. A moderate altitude above sea-level, with rather high average barometric pressure, is generally preferable. Some invalids need to climb the heights in order to secure the best results.

4. Warmth and permeability of the soil are prime essentials.

5. High winds and severe storms, if frequent, are a dismal drawback.

6. There should be an abundance of unimpeded sunshine. It is the most potent antiseptic and disinfectant in the universe.

The Ventilation of Street Sewers.

Dr. David Walsh, writing in the Medical Press and Circular, says that the water-carriage system of disposal of the sewage refuse of towns, although it has commended itself above all others by its convenience and efficiency, has given rise to not a few sanitary difficulties. The natural ventilation of sewers, due to the contained air, is a somewhat complicated process. There goes along with the stream of sewerage a current of sewer gas. A change of temperature will affect the pressure of sewer gasses, which are cooler in summer and warmer in winter than the outside atmosphere. Hot liquids and steam from boilers also greatly affect sewer temperature. The pressure from steam boilers is sometimes so great as to force house-traps.

There have been many efforts made from time to time to extract, to deodorize, and to purify sewer air. One popular method is to connect the vent with a furnace chimney, whereby the sewer air is withdrawn and cremated.

An effective, simple and inexpensive system of sewer ventilation is that devised by Messrs. Stone & Co.

The general idea of Stone's apparatus is by means of a stream of water at ordinary tap pressure to draw the air of the sewer into a tank where the sewer gasses are mixed with fresh outside air and thoroughly washed in water. The purified air is then allowed to escape into the outside atmos-

phere, and the tank water with the soluble gases and micro-organisms is returned to the sewer, which may be flushed automatically by discharging the overflow into a suitable collecting tray.

The chief points in favor of this system of sewer-gas purification appear to be:

1. Ease of application (wherever there is a constant water supply).

2. Small cost (as it withdraws and purifies 10,000 cubic feet of sewer-gas at a cost of 1s. 6d.).

3. Simplicity of apparatus (nothing to corrode or get out of order).

4- Simplicity of materials needed, *i. e.* water and air.

5. Its subsidiary use as a flush for sewers.

6. Its automatic and constant action.

7. It forms a continuous exhaust of sewer-gas independently of external or internal temperatures.

8. It disposes of micro-organisms—which are probably the most dangerous elements of sewer-gas—and thus helps to purify the air.

9. It relieves local high pressure of gas within sewer.

10. Bacteria are returned to sewer and rendered available for septic tanks.

11. It renders street openings constant in their action, either as inlets or outlets.

12. It can be applied to existing manholes.

This simple invention appears to fulfil the requisites of a sound, practical sewer ventilation. It is certain that up to the present time no plan has been found worthy of the high standard of efficiency demanded by modern sanitation. Stone's new apparatus deserves the careful attention of every sanitary authority called upon to control a water-carriage system of sewage disposal.

Operation for Visceral Ptosis.

Robinson, in the Journal of Orificial Surgery, claims that visceral ptosis is chiefly due to three great factors, viz.:

a. Elongation and separation of fascial fibers of the abdominal wall, especially along the linea alba aud linea semilunaries.

b. Elongation and separation of muscular fibers of the abdominal wall, particularly in the form of diastasis of the musculi recti abdominales.

c. Gastro-duodenal dilatation from pressure of the superior mesenteric artery, vein and nerve on the transverse segment of the duodenum. Since the mesenteries are not intended for such mechanical support, the viscera follow the yielding abdominal wall, resulting in visceral ptosis. Persons with visceral ptosis suffer from neurosis, due to trauma of the nerves in the abdominal wall. Visceral ptosis which deranges visceral motion, sensation, secretion and nourishment, gastro-duodenal dilatation and relaxed abdominal walls he finds to be a very frequent disease.

Veratrum Viride; Its Undeserned Neglect.

E. W. Saunders, in the St. Louis Medical Review for March, gives the action of this drug in pneumonia as follows:

1. It diminishes the pulse rate.

2. It lessens arterial pressure.

3. It diminishes the number and depth of the respirations.

4. It reduces the temperature one to three degrees.

5. The patient has a feeling of well-being.

6. The urine is increased in quantity.

7. It quiets nervous excitement.

8. Hepatization in the lung is precocious and partial.

What Shall we do in Appendicitis?

Much has been written and said in reference to the best course to pursue in the management of a case of apdendicitis. C. T. Hood has drawn the following concise and practical deductions from an article in the Medical Visitor:

First: That the symptoms of a mere catarrhal appendicitis cannot be distinguished from those of a grave septic case, in the beginning.

Second: If the symptoms begin to subside within twelve to twenty hours, the case is in all probability one of catarrhal appendicitis.

Third: If no improvement occurs within twenty-four hours, the case is, in all probability, septic.

Fourth: If at the onset there is generally diffused pain with symptoms of shock, perforation has occurred.

Fifth: If generally diffused pain and symptoms of shock occur after forty-eight hours, perforation has taken place.

From these deductions, what stand shall we take in reference to surgical interference?

First: If the symptoms begin to subside within twenty hours the case is, in all probability, catarrhal and will recover under proper treatment without operative interference.

Second: If the symptoms do not subside within twenty-four hours, the case is probably septic, the inflammatory process is confined to the appendix, and there is a good chance of removing the appendix with a mortality of two per cent.

Third: If the case has run from forty-

eight to seventy-two hours, the inflammatory process has, in all probability, invaded the surrounding tissue and more or less peritoneal adhesions have been formed, and the removal of the appendix is attended by grave danger and a very high rate of mortality, but proper drainage can be made with comparative safety.

Fourth: If the case has continued longer than seventy-two hours, nothing but drainage is to be thought of.

Fifth: If perforation has occurred either at the onset or later, no surgical interference is to be thought of until all signs of shock have passed and the system has become tolerant of the infection, and then only for the purpose of drainage.

Empyema.

The subject of empyema is a very old one and one of much importance. It is somewhat of a common occurence and common diseases should receive our most careful attention. There are times when it is quite difficult to distinguish pneumonia from pleuritic effusion but in reading an able article by Stephen Smith Burt in the Indian Lancet March 4, he gives the differentation most clearly: He says

The main points of difference between a pueumonia and a pleuritic effusion are, a consolidation may take place anywhere in the lung, whereas on effusion usually gravitates to the lower part of the chest. The fluid shifts with the movements of the patient; the consolidation does not. In pleurisy there is immobility of the affected side with expansion; in pneumonia there is immobility without expansion. Fremitus is absent in pleurisy while in pneumonia it is always present, if not exaggerated. The semi-circumference may be increased by an effusion, it is not modified by consolidation. Where there is fluid there is flatness; there is dullness over hepatization. There is bronchial breathing in pneumonia; in pleurisy the breathing is either absent or faintly bronchial. Vocal resonance is present if not exaggerated in pneumonia; in pleurisy it is either absent or diminished. It is sometimes a difficult matter to differentiate between an effusion and a greatly thickened pleura because flatness may exist in both instances. If breathing is audible through the plastic exudation it is apt to be weakly vesicular rather than faintly bronchial. The semi-circumference of the chest will be decreased rather than increased, and the heart will be drawn towards, instead of pushed away from, the side affected.

Puerperal Sepsis; Its Prevention and Method of Treatment.

According to the American Medicine for April, E. E. Montgomery summarizes the treatment of sepsis as followsa

1. Prevention by the exercise of the most careful asepsis and antisepsis.

2. The accurate study of each puerperal case to recognize the cause of high temperature and eliminate other factors than sepsis.

3. The maintenance of the vital forces and the promotion of elimination by the administration of diet and remedies to meet indications.

4. The employment of serum injections when streptococcic infection can be recognized or justifiably inferred.

5. Resort to operative procedures must be governed by the local manifestations. Curetment is rarely justifiable in pure sepsis. Peritonitis or localized cellular inflammation in the pelvis should indicate vaginal incision and drainage. Hysterectomy is indicated whenever the uterus can be recognized as the seat of localized collections. When the ovary or tube only is involved, it should be removed. The recognition of a pus-collection should indicate its evacuation or the extirpation of the organ in which it is situated.

6. The continuance of symptoms of sepsis when local manifestations are not recognized will justify incision to determine the presence of secondary sources of infection.

Sea-Sickness.

This subject will always be interesting and any thing that will have a tendency to its relief will be heartily received. C. Butler Savory in the British Medical Journal comes to the conclusion that the cause of sea-sickness is purely reflex and physiological, acting primarily through the semi-circular canals.

The affection commences in a very large percentage of cases with a feeling of giddiness, much increased if the weather be cold.

As the malady develops, the patient becomes faint, the face assumes a sallow appearance, and there is diminished desire for exertion. In some cases symptoms will remain at this stage until the patient becomes convalescent by becoming used to the motion of the ship; in others it passes on to a stage of secretion of saliva, with contraction of the stomach and actual vomiting.

From my observations I believe the whole of the symptoms can be traced to irritation of the two terminal branches of the auditory nerve to the cochlea and semi-circular

canals. The upper division of the auditory nerve is connected at the base of the internal auditory meatus with the geniculate ganglion of the facial nerve, and this latter in its turn gives off fibres which pass to the trunk of the pneumogastric by means of its auricular branch; there is thus a complete chain of nerve fibres, starting from the terminal branches of the pneumogastric, distributed over both surfaces of the stomach.

This stimulation of the auditory nerve would be caused by the movement of the endolymph set up by the motion of the ship. This gives rise to a feeling of giddiness. From here the stimulation would pass through the various secretory and vaso-dilator fibres of the facial to the submaxillary and sublingual glands, causing a flow of saliva. The remaining course would be by the trunk of the pneumogastric and the depression of the heart's action, and the vomiting can be accounted for by the depressor fibres which the nerve gives to the heart, and the motor fibres which it gives to the wall of the stomach.

As to treatment, none of the usual remedies appear satisfactory. When the patient could be induced to take active exercise it always had a beneficial effect, and this fact too would help to point to a disturbed condition of the semi-circular canals as being a cause of this malady.

Circumcism in Restricting the Spread of Syphilis.

From time immemorial the restriction and limitation of syphilis has been an absorbing theme for the profession. Until recently, in fact until after the gonococcus was intensified and cultivated, gonorrhœa was considered purely local, with an occasional stricture, &c., as a result. Now we have gonorrhœal pleurisy, meningitis, myocarditis, peritonitis, and of late a gonococcemia. This shows that gonorrhœa is not the little, simple, innocent local disease once thought to be and so treated, and it further illustrates to us that there is a wide difference of opinion as to the graded mortality of the two diseases, gonorrhœa and syphilis, and that we must look to a prevention of the one as well as the other. Harold N. Moyer, in the Journal of the American Medical Association calls attention to circumcism as a prevention of syphilis. He says:

This operation is known to enormously lessen the case incidence of syphilis. It is free from risk, and does not inflict any disability on the individual; on the contrary, the operation is a decided gain, even if it had no influence in directly lessening the venereal diseases. It does away with phimosis, balanitis, and tends to prevent hernia and rectal prolapse, as well as a frequent train of nervous symptoms which follow a constricted and adherent prepuce.

A comparison of the condition of the glans and the preputial fold in those who have been circumcised and those who have not, reveals a striking difference. In the uncircumcised the ducts at the frenum become clogged with secretions, the mucous membrane of the glans is sodden and easily excoriated. Once a solution of continuity is formed in the epithelium, the retained secretions form an admirable culture-medium. It is surprising how few statistics there are bearing on this subject, but those that are at hand conclusively confirm the immense importance of circumcision in preventing the spread of syphilis.

Diagnosis Between Appendicitis and Typhoid Fever.

According to the Providence Medical Journal, Maurice H. Richardson gives the following conclusions as to the diagnosis between appendicitis and typhoid fever:

I. In rare instances an appendicitis in which the abdominal symptoms are mild simulate a typhoid in which they are pronounced.

II. The symptoms which should put the surgeon on his guard against typhoid are in the order of their importance:

a. Pain without rigidity.

b. Pain and tenderness without rigidity.

c. Pain and tenderness without rigidity, without tumor.

d. A history of malaise, headache, slight fever preceding the pain even if of only twenty-four hours duration.

e. An initial and sustained temperature of 103 deg. or more preceding the pain.

f. Increased area of splenic dullness when other symptoms suggest equally appendicitis and typhoid fever.

g. Rose spots.

h. Normal leucocyte count.

III. Sometimes the diagnosis cannot be made.

IV. It will be almost always safe to wait, and the surgeon should wait when from the absence of rigidity and tumor typhoid is suspected, especially if the patient is near at hand. Twenty-four hours will usually be time enough to establish the diagnosis of appendicitis or to rule it out. Many days may be necessary to recognize positively typhoid fever.

V. The dangers of exploration in the initial days of typhoid are probably slight.

The wound pursues an aseptic course. In one case, at least, if it existed, the disease was aborted by the removal of the mesenteric glands and the appendix.

VI. The most experienced and careful diagnostician may be misled by the prominence of abdominal symptoms in typhoid into advising operation. Chagrin at such a mistake should not be felt if the examination has been careful and thorough with the possibilities of typhoid being kept well in mind.

VII. When the abdomen has been opened the appendix should be removed. If mesenteric glands easy of access are present they should be removed.

VIII. Even with the abdomen opened, there is no positive way of recognizing typhoid in the first days. When glands are removed which present the features of typhoidal glands, a rapid convalescence of the patient throws some doubt upon the diagnosis, especially when no typhoid bacilli are found in the glands, and the cultures from blood serum are sterile.

The Etiology of Rheumatism.

Many and great have been the theories advanced as to the cause of rheumatism. As yet the cause remains unsettled. David Riesman, in the Milwaukee Medical Journal says that:

1. Acute articular rheumatism is a specic infectious disease.

2. It is not an attenuated form of pyæmia in the sense that it is due to pyogenic organisms of reduced virulence.

3. Its true cause has not been definitely discovered, although the bacillus of Achalme may prove to be the long-sought microorganism.

4. A number of joint affections resemble acute articular rheumatism, just as certain pseudomembranous inflammations of the throat resemble diphtheria, and various diseases of the lung resemble typical lobar pneumonia.

5. These joint diseases should, wherever possible, be separated as rheumatoid or pyæmic affections.

6. They are best designated, according to their cause, as streptococcic, staphylococcic, gonococcic, or pneumococcic arthritis.

Drugs in Chronic Bright's Diseases.

There are many drugs used in this fatal disease, some are of use, and others are worthless. Alfred G. Barrs, in an able paper on this disease, in the British Medical Journal March 30, 1901, says:

Still, of the many drugs which are in use in the treatment of Bright's disease, some are of great value. We have not, and we can not have, any drug or other thing which can replace the kidney destroyed. We might have, and may have some day, some drug or something which will arrest the process of Bright's disease as distinguished from its results. Our therapeutic indications are at present entirely symptomatic. I have no great belief in what is known as the general treatment of Bright's disease by drugs, beyond the systematic use of purgatives to keep the bowels acting freely. Beyond that no drugs are necessary except for the treatment of special symptoms as they arise. I have no great faith in the so-called vicarious actions of organs. The proper way out of the body for urea is the kidney, and neither the intestine nor the skin can be made to take its place efficiently. Diuretics such as digitalis are frequently of the greatest use, and almost as frequently fail. Diaphoretic drugs—and of these pilocarpin is the only really active one—are sometimes unpleasant, not to say dangerous in their effects; and the hot bath and hot-air bath do all that can be done, and are strictly under our control. Vaso-dilators have very little, if any, diuretic action in chronic Bright's disease, but in dyspnœa, headache, and vomiting frequently give great relief. The nervous and respiratory disturbances of the more severe degree of renal toxemia, which usually portend a not far distant death, exercise our therapeutic resources to the utmost. Bleeding, purging, and sweating are our usual methods of dealing with convulsions and coma, and I do not propose to refer to their use in detail.

The old practical rule—that in renal disease morphine or opium should not be given—is still one to be observed without hesitation in most cases; but there not infrequently arises respiratory and mental disturbances of the most distressing and painful kind, which morphine alone relieves, and in which it can be given with perfect safety. It is a remarkable fact, and it has been frequently observed, that the manifestations of the uræmic state are singularly mutually exclusive. For instance, great dropsy may exist without any single toxæmic manifestation. (I think dropsy may in some sense be regarded as a toxæmic manifestation). Albuminuric retinitis, causing absolute blindness, I have seen to be the only manifestation of ill-health apart from the urine. One patient becomes drowsy and comatose and dies; another becomes wildly maniacal—in both cases without a trace of dropsy. Dyspnœa, uræmic asthma of the toxæmic type—that is, unassociated with disease in the

heart, lungs, or pleura—exists quite alone, sometimes for weeks together, a constant source of sleeplessness of the most distressing kind. It is in this wakeful, painful, non-soporofic form of uræmia that morphine is of the greatest advantage, and may, when given with care, be used with perfect safety. I constantly use it in the treatment of this distressing dyspnœa and wakefulness, and no other drug relieves so completely and safely. The contraindication is that which common sense would suggest, namely, the presence of or tendency to coma. By stupor and coma produced by his own poisons the patient's sufferings ultimately come to an end, and there is no need for us then to administer a soporific in the shape of morphine.

Varicocele.

This is a common condition familiar to the physician and surgeon. William H. Bennett, in the British Medical Journal, says for practical purposes Varicocele is merely varix of the veins of the spermatic cord, which is always congenital. As As a rule no trouble arises from the abnormality. Taking a community generally, it will be found that 70% of males have varicocele; 80% of that number will be affected on the left side; about 15% will be affected on both sides, and occasionally a case of varicocele on the right side only will be met with, but such cases are rare. From mental causes a great number of people suffer from varicocele, imagining all kinds of strange things with it. These people are very difficult subjects to deal with. There are varieties of varicocele, a fact of much more importance than people suppose, because there is one form of varicocele which is always harmless unless it meets with injury, and there is another kind not always harmless, because by a reason of its structure, it may have considerable affect upon the sexual apparatus about the time of puberty and sometimes later. Varicoceles also vary a great deal in different subjects—one variety being composed simply of very large veins. It is to this particular variety of varicocele that the comparism to a boy of worms is applied. This is the commonest form of varicocele and is usually harmless. In the second kind the veins are small and exceedingly numerous. There is no reason why a man who suffers from the large vein varicoceles should be considered to have any physical defect apart from liability to injury. The patients, on the other hand, who suffer from the small vein sort have a defect which is liable to be followed by trouble. The great question is, what can be done in a rational way to help people like these?

Upon inquiry it will be found that they are nearly always people who live more or less alone. I do not mean that their whole time is spent in solitude. They may, indeed, be working the whole day long among crowds of people, but after the day's work is done they retire to spend their evenings absolutely alone, without society or recreation—a kind of solitude which tells especially upon educated people like, for example, many workers amongst the poor in the East End or elsewhere, whose duties lie amongst those of a lower social and intellectual grade than themselves, with whom companionship in the true sense is impossible. The loneliness of such a life is often greater than that of real solitude. And with the weariness and exhaustion following upon long hours of work, the mental mood which leads in solitude to the exaggeration of trival affections fits well enough. These sufferers are always unmarried and to whatever class they belong are sensitive and intelligent beyond the average. I have never known a dull, a stupid, or an uneducated person develop the symptoms which I have described. Unsatisfied sexual desire is sometimes at the bottom of the trouble, which in many cases could be cured by marriage—a condition upon which, although other things may be favorable, the majority of these men hesitate to enter because they think they are impotent, a belief which it is most difficult to overthrow. This apprehension about the effect upon the virile powers is not confined to the morbid class of subjects of whom I have been speaking, but is felt more or less by a considerable number of healthy men upon the discovery of the existence of varicocele; in fact it is one of the common causes which lead to advice being sought. The question therefore arises, Does varicocele as such ever produce impotence in an ordinary individual? I suppose certainly not; there is no reason why it should do so. And there is equally no reason—although you will sometimes hear the contrary stated—why self-abuse should produce varicocele. No greater mistake could be made than to think that it does so, although it is of course a useful view for quacks and other unscrupulous people to adopt, because it possesses the class of individual upon which they flourish. Although self-abuse cannot in my opinion be a factor in the production of varicocele, I have had sufficient evidence to show that the existence of varicocele sometimes produces an amount of irritation and sensitiveness about the sexual organs at the time of puberty which is sufficient, in some cases,

to lead to habits of self-abuse, which are relinquished after the cure of the condition, a very important point. The possibility of this affection being produced by anything like self-abuse may, I am sure, be at once dismissed, but about the time of puberty, when the whole of the generative system is in excessive growth, an abnormal amount of sensitiveness, probably from congestion, may certainly arise in some cases of varicocele which tends to bad habits.

The best course to pursue in such cases, where the subject is a healthy one, is to cure the varicocele by operation, a very simple proceeding if properly carried out.

Venereal Disease as a Social Problem.

This great question of venereal disease as a social problem is beginning to dawn heavily upon the physician both as a medical adviser and a public man. It is he who is looked to to solve the problem. In the Journal of the American Medical Association is written a very excellent article on this subject by W. G. Gates, and in concluding his paper he says;

Prostitution is a very great evil and its suppression would be a desirable thing, but so long as a great majority of the children born are subject to the worst hereditary influences associated with the sexual passion, and the question of how to breed and raise the best is seldom considered, I do not think its suppression possible. An individual is what he is born, plus his environment. The environment may be changed, but the other qualifications, such as stature, etc., are unchangeable, except to a very limited extent; therefore, some individuals are no more to blame for being prostitutes than others are for having red hair, or blue eyes. The enaction of proper laws to control prostitution and restrict the evil arising from it, with the best measures possible in educating the coming generations on these subjects, I believe is the best that can be done at the present time.

Social purity should be one of the ideal aims of society, and I believe its nearest attainment will be found through the means of education. Our medical schools should give thorough instruction in sexual hygiene and physiology. Medical men can have great influence in moulding public opinion and causing people to give their children proper instruction in sexual matters. In a majority of our homes at present, if a child dares to ask a question pertaining to sexual matters, it is either lied to or deceived, or silenced in such a way that its mind receives a great shock. That all living organisms reproduce themselves is a fact which may be taught a child with plenty of every-day illustrations, without any element of sensuality presenting itself.

I think that the most wofully ignorant of all classes on such subjects are the clergymen and teachers, and as they wield immense influence their education should not be neglected; and unless special attention be given to the leaders of the churches, they will oppose all efforts along this line, because the truth runs counter to their pet prejudice on the subject of morality. While the church influence is unsatisfactory in the extreme, it is so through ignorance and prejudice.

Tuberculosis and Marriage.

According to the Boston Medical and Surgical Journal, Samuel W. Abbott, discussing Recent Progress in Public Hygiene, says:

Professor Massalongo, of Verona, indicates certain measures which, in his opinion, should be taken to prevent the production of tuberculous offspring.

Recognizing the infectious character of tuberculosis, he says that while it may not be practicable under present laws and customs to prevent the marriage of tuberculous persons, it may be possible to take such measures as shal' diminish the dangers of such marriages.

He advises the widespread publication of information upon the subject of the danger of marriage of tuberculous persons; as well of extremely early marriage; also the necessity, where such marriages occur, of rendering them sterile; of removing from the domestic fireside the offspring of such marriages as a matter of safety, and of keeping careful watch of such children till they have passed the period of puberty.

Tropical Dyenteries.

Dysentery is a disease we should give more attention to than we now do. To say the least of it, it is a disease that should be well studied particularly at this season of this year. There are many treatments for the various types of the disease, but the writer is very favorably impressed with one plan of treatment offered by Stephen M. Long, in the New York Medical Journal for March. He says:

You have heard of the miracles as well as the failures of this great drug—ipecacuanha. This drug will often succeed if administered in the following manner: Put the patient to bed, and, while his stomach is empty, administer from fifteen to twenty drops of tincture of opium; then, fifteen

minutes later, put an ice-bag on his head, apply a mustard plaster on his stomach, and give a hypodermic injection of morphine, one-quarter of a grain (to give him a chance to sleep), and administer not less than forty grains of ipecacuanha by the mouth; at the same time give instructions to the patient or to the nurse that he is to remain quiet on his back for four hours without moving or taking anything by the mouth, and that, should the saliva increase in the mouth, it is not to be swallowed, but to be spit out. Out of ten patients, you will find that eight will retain it, and out of the eight who have retained the medicine, only one or two will need a second dose. So, from sixty to seventy per cent. will be cured by one administration, from ten to twenty per cent. will be cured by a second dose, and twenty per cent. will require some other kind of treatment.

The Treatment of Headache.

L. Harrison Mettler, in Merck's Archives for March, writes interestingly upon this subject. Common as it is, no trouble demands so intelligent and painstaking a search for its causation. For convenience, the writer divides headaches, according to their etiology, into the following five classes:

1. Those due to vasomotor disturbances, as hyperemia, anemia, and arterial changes (arteriosclerosis).

2. Due to blood states (toxemia); as in uremia, acetonemia, and the gouty and rheumatic diathesis; in drug poisoning by opium, alcohol, quinine, and chloroform; in saturation with lead, tobacco, tea, and coffee; in pyrexia and infectious diseases, as pneumonia, typhoid fever, influenza, and malaria.

3. Due to reflex irritation, including eye-strain, and all kinds of irritations in connection with the mucous cavities, stomach (dyspepsia) and reproductive organs (dysmenorrhea, masturbation, etc.).

4. Those of neurotic origin, such as the headaches of epilepsy, hysteria, neurasthenia, neuralgia, mental strain, and hemicrania.

5. Due to organic diseases, like tumor, hydatids, ossific formations, syphilis, tuberculosis, softening, meningeal inflammation, thickening, and insolation.

When summoned to attend a splitting headache relief is demanded at once by the patient and we often have to administer an analgesic and wait for a more appropriate time to find the real cause. The pain is in the sensory apparatus, whatever may have been the cause and location of its origin, and to afford the patient prompt relief some remedy or measure must be employed that deadens the sensitiveness of the sensory apparatus. Among the remedies used for this purpose morphine stands at the head of the list, though it must be used cautiously and in minim doses. Next to morphine, phenacetine, antipyrine and acetanilid are used with success. Of all the non-medical remedies the preference is given to electricity.

Remembering that the vast majority of headaches are but symptoms of some other trouble, the therapeutics of the former resolves itself into the treatment of the latter. Febrile and syphilitic headaches, and those due to eye-strain do not demand the expenditure of much thought in regard to their treatment after their etiologic diagnosis has once been clearly determined. As everybody knows, the rheumatic headaches call for the salicylates, the gouty for colchicum and regulation of diet, and those due to tumor for an experimental trial of the iodides.

Patience, perseverance, and abundant ready resources are absolutely necessary to obtain anything like a uniform success in the relief of headache.

Topical Applications in Gynecological Practice; Their Use and Abuse.

J. W. Andrews, in the Western Medical Review for March 15th, has an article on the topical applications in Gynecological Practice; Their Use and Abuse.

In the course of his paper he pictures very graphically his experience and observations in gynecological practice. He tells how all young graduates want to become gynecologists, and how all the women who fall into the hands of a physician was told that her headaches and backaches were due to reflex action, of which the uterine organs were the source. The chief ingredients for complete gynecological work, for the last 25 years, consists of tincture of iodine, compound tincture of iodine, tincture of iodine and carbolic acid, glycerine, boroglyceride, hot water and mechanical support in the way of pessaries. These methods of treatment have done some good, but they have been abused and have done a vast amount of harm. On the whole this plan of treatment is considered unscientific. The pessary is condemned most bitterly as a hard, unwieldly, uncomfortable little instrument.

Concluding his article he says: I believe there is no longer a legitimate field for the gynecologist. There is no reason why a good surgeon who can operate well in the abdominal organs should not operate equally

well on the pelvic organs. There is no reason why the general practitioner cannot treat catarrh of the cervix, when it exists, as well as he can catarrh of the throat, and let us hope that the routine topical applications in gynecological practice may be relegated to the mistakes of the nineteenth century.

Treatment of Gonorrhœa.

J. Francis Ward, writing in the Vermont Medical Monthly gives his methods of treatment for gonorrhœa in a number of cases. His satisfactory treatment consists in rest in bed with a light diet of milk and toast, abstaining from alcoholic beverages, coffee, spices and tobacco, and sexual excitement, with as much rest as possible. For internal medication the following is given:

Potass. citrate,	oz. ½ss.
Ol. Santal,	oz. ½ss.
Mucilog. acaciæ,	j.
Syrup simplic,	oz. ½ss.
Aqu. cinnamon, qs. ad.	iij.

Shake. M. Sig. One drachm every three hours.

This will allay the acidity of the urine. His ideal injection is protargal. The urethra is first washed out with a twenty-five per cent. solution of peroxide of hydrogen, using from one-half to one ounce at a time, with a conical glass pointed syringe. The hydrogen will clean away all pus and debris. The urethra is then washed out with a warm saturated solution of boracic acid. The protargol is then used in the strength of 1 : 1000 to 1 : 500 in a return flow irrigator. About two quarts is allowed to flow through the urethra at intervals.

Owing to the penetrating power of protargol it is far superior to all other remedies of this kind. It causes neither pain nor irritation and the disease is checked in a very short time.

The Treatment of Puerperal Eclampsia by Saline Diuretic Infusions.

According to the British Medical Journal, Dr. Robert Jordine is a very ardent advocate of saline infusions as the essential treatment of Puerperal Eclampsia. It is his aim to dilute the poison and get rid of it as quickly as possible—that is to treat the cause and not a mere symptom.

In citing several cases under his care just within an ace of having fits, by prompt purging with salts, and the use of diuretics and a milk diet, they escaped eclampsia. He argues that if by the establishment of diuresis one can prevent the fits, surely it is reasonable to suppose that they can be cured by the same method. Where the patient has been seized with a convulsion drugs should be given by the subcutaneous method. Besides the diuretic effect, we get a dilution of the poison and a stimulation of the patient. It is claimed that since the saline infusion has been added to the treatment the death-rate has fallen from 47 per cent. to 17 per cent.

The Treatment of Exophthalmic Goiter with Collodion Dressings.

The method of reducing goitre by flexible collodion dressings is given in a paper in the Chicago Clinic by Allen T. Haight.

In making the application of collodion the following points are to be observed:

1. The collodion must be absolutely fresh so that the maximum degree of contraction will be obtained at each application.

2. Rapid evaporation will be secured by using from 20 to 30 pounds of air pressure, thereby increasing the compression fully one-third.

3. The patient's head should be placed in an easy position with muscles relaxed.

4. The collodion may be applied with a brush or cotton carrier and the pressure should be kept constant by repeated applications, as required, at intervals from two to five days.

The Mortality of Operation for Obstructive Jaundice.

John B. Deaver writes very interestingly on this subject in the American Medicine April 6th. He names seven causes of obstructive jaundice:

(1) By foreign bodies within the ducts, as gallstones and parasites; (2) by inflammatory tumefaction of the duodenum or of the lining membrane of the duct; (3) by stricture or obliteration of the duct; (4) by tumors closing the orifice of the duct or growing into its interior; (5) by pressure of the duct from without, as by tumors of liver itself, of the stomach, pancreas, kidney, or omentum; (6) by pressure of enlarged glands in the fissure of the liver, more rarely by abdominal aneurysm, fecal accumulation or the pregnant uterus; (7) to these may be added lowering of the blood pressure in the liver, so that the tension in the smaller bile ducts is greater than in the blood-vessels.

Continuing, he says the most common of all causes, and more common than all the others put together, is obstruction gallstones.

Pelvic Presentations.

There is often some doubt in the physician's mind as to the exact position of the fœtus in pelvic presentation. Often times the foot is mistaken for a hand, and other errors of similar nature are liable to occur. In a good article in the Nashville Journal of Medicine and Surgery, C. A. Robertson differentiates a foot from a hand in this easy manner:

1. The internal border of the foot is thicker than the external, both borders of the hand being the same.

2. The foot comes off from the leg at about right angles, whereas the hand is continuous with the forearm.

3. The toes correspond to a straight line while the finger tips are very uneven.

4. It is impossible to separate the toes from each other as can be done with the fingers.

5. We cannot approximate the great and small toes, as we can the thumb and little finger.

Infusion of Salt-Solution in the Treatment of Pneumonia.

It is highly recommended by some to use salt solution in pneumonia, but D. E. Keefe, in the Philadelphia Medical Journal, does not advocate its use and gives for his reasons that: (a) The added fluid cannot circulate through the affected lung to any extent; (b) it tends to cause edema and pneumonia in the unaffected lung; (c) it dilutes the hemoglobin, and so is an impediment at a moment when this is most needed; (d) it places an additional burden on the heart (its propulsion and elimination); and, finally, it tends to paralyze the capillaries, destroy vessel tonus, and overwhelm the heart, while all the good it accomplishes may be effected by other agents not involving like objections and dangers.

The Value of Alcohol in the Acute Infectious Diseases of Children.

There is no subject in medicine about which there is as much difference of opinion as the use of alcohol in fevers. Its advocates are many, while on the other side just as many condemn its use. Augustus E. Bieser, in Pediatrics, says while alcohol should not be given in every case of fever, certain definite indications exist which imperitively call for its use. 1. Persistence of a high temperature. 2. Persistence of a rapid, feeble, irregular, decrotic pulse, whether associated with high, low, or irregular temperature. 3. Persistence of marked prostration. Whenever this weird triod of symptoms obtains and persists in the acute infectious diseases of children, alcohol looms up as one of our most reliable remedies. If, however, after giving alcohol the pulse becomes quicker and more irregular, the skin hotter and dryer, tongue browner and dryer, breathing shallower and hollower, it means that the alcohol is doing no good even if it is doing no harm, it means that your little patient has passed from the stage of depression in which alcohol is of decided utility, to the stage of exhaustion of the vital powers, in which it is of no value; nor is any other remedy for that matter. Under such circumstances alcohol had best be discontinued. Depression of vital powers, no matter how alarming, can be successfully combatted by alcohol in conjunction with other powerful and quickly acting stimulants. Exhaustion of the vital powers, whether in old age or infancy, means death.

Vertigo—a Stomach Lesion.

There is no symptom so troublesome as that of Vertigo; its etiology is just as perplexing. There are many forms of vertigo, but Martin A. H. Shelberg, in the Medical News in regard to the mechanism of Vertigo and Stomach, is of the opinion that this symptom is brought about by either or all of three causes, to-wit:

1. Reflexly through direct irritation of the gastric branches of the pneumogastric and thence by the lower cervical ganglion to the vasomotor nerves of the vertebral artery, which supplies the internal ear.

2. By toxemia from amulon, and other ptomaines, nicotine, alcohol, reabsorption of bile, the toxins of the infectious diseases, etc., etc.

3. By direct pressure upon the heart through distention of the stomach and intestines by gases, resulting principally from so-called amylaceous indigestion and hyperchylis.

The Use and Abuse of the Galvano-Cautery in Nasal Surgery.

In the Medical Age for March, C. D. Conkey has an article on this subject and comes to the following conclusions:

1. The objections raised against the cautery are founded upon its improper use.

2. As a matter of routine practice it should not be used upon the roof of the nose, the middle turbinate, the vault of the pharynx, the soft palate, and the uvula.

3. Upon the septum only when much hypertrophied or deeply congested, and

then the burn should be neither deep nor extensive.

4. Upon the lower turbinate it may be used to great advantage, confining the applications as much as possible to thrusts, and avoiding large electrodes.

5. In the throat it may be used to the greatest advantage upon the tonsils, pharyngeal hypertrophies and follicles, and at the base of the tongue to destroy dilated blood-vessels and hypertrophied glandular tissue, but using it so as to avoid contact with the epiglottis.

Diabetes--A Successful Treatment.

Jno. B. Hawes, in the International Journal of Surgery, recommends the electric battery almost as a specific in this disease. This is somewhat new to the writer, but he cites six cases treated by him with the battery, five of which were entirely cured, the sixth leaving for the west. No medicine were given and plenty of fruit allowed.

The faradic current was used at first very weak. The cathode was placed at the base of the spine, while the anode was held at the base of the skull. Seances of five, eventually increased to ten minutes were given. The improvement was extraordinary.

Quick Removal of Tape Worm.

A. J. Weldon, in the Southern Practitioner, recommends for the removal of tænia solium a teaspoonful of chloroform on an empty stomach to be followed in an hour by an ounce of castor oil. The chloroform producing anæsthesia on the worm and while in this stupid condition he sleepily floats away with the contents of the bowels, the effects of the oil.

The Leading Editorials of the Month.

Gelatin Injections for Aneurism.

The New York Medical Record, in commenting on this subject, says: "Aneurisms of the great vessels of the body are such unsatisfactory things to treat, both medically and surgically, that anything which promises an advance in this connection should have a fair hearing. During the past two or three years a number of attempts have been made to cope with certain aneurisms beyond the reach of radical surgical intervention, by means of the subcutaneus injection of solutions of gelatin, administered with the view of increasing the coagulability of the blood. There have been numbers of cases reported by different observers, most of whom are on the continent of Europe. The technique of the injection has usually been the same among all operators, and consists in the subcutaneuous injection of a sterile solution of gelatin, to the amount of about 250 c.c., at intervals of two or more days. The strength of the solution has usually been one or two per cent., and no serious local disturbances have been reported.

Geraldini, an Italian observer, reports (*Gaz. degli Ospel.*, February, 1901) four aortic aneurisms, in the treatment of which he made use of this method, with great apparent benefit, though the details are not given with quite as much completeness as is desirable. In one patient who had an aneurism involving the nominate artery, the benefit was apparently very great. Forty-five injections were given in all, and the tumor ceased to pulsate, and diminished in prominence. Another patient with an aortic aneurism received sixty injections, and much benefit was claimed. In this case, albuminuria developed during the course of the treatment, so that the injections were discontinued for a number of days. In the other two cases in this series marked improvement was also noted. A number of other writers have reported more or less similar favorable experiences, and several cases have been reported in which no benefit was seen, but the four cases mentioned above are of enough importance to gain attention for the method, and to make it advisable to pursue the matter under proper circumstances.

The gelatin is said to act, as would naturally be supposed, by increasing the coagulability of the blood, though it seems to us that the limit of safety in this increase must very soon be reached if the cause of the increase is mechanical—that is, solution of a gelatin in the plasma. It does not appear that the plasma could exercise its physiological function with more than a very small percentage of gelatin in solution in it. We must not, furthermore, be too ready to decide favorably in the case of this method, until we are able to judge in how great a degree other recognized means of treatment have been employed, from which favorable results have heretofore been reported. Potassium iodide, rest, and restricted diet have often given at least temporary satisfaction in cases of aneurism of the great vessels, and a large share of a good result might really be due to such means, when the disposition would be to credit the novel method with the good done, without making due allowance for the adjuvants.

Several instances of the employment of the method in this country have been re-

ported, in which there has been no perceptible improvement, and apparently the physiological limit of its applicability and safety would seem to be very considerably on this side of the point at which mechanical suspension of gelatin in the blood plasma would be sufficient to exercise its power of increasing coagulability to a sufficient extent.

However, more clinical evidence is what is needed, and as, with proper precations, there seems to be danger in the employment of this method, there is no objection to asking for further trials. Evidence is not likely to accumulate very fast, since aneurism is not a very common disease here; but the burden of the proof lies with the new method."

Postoperative Insanity.

The Therapeutic Gazette says: "It is a well recognized fact in surgery that after both major and minor operations in a small percentage of cases there develops a condition of mental confusion, often accompanied by restlessness, and sometimes by hallucinations or even by acute mania. This was observed as far back as the sixteenth century, and was ascribed by many of the older writers to the effects of alcoholism. The circumstance that these disturbances or perversions of cerebral activity are at times permanent makes an investigation as to their cause, their frequency, and their preventability a matter of prime importance.

The literature upon the subject is now sufficiently comprehensive to justify certain conclusions in regard to this subject. First, as to the frequency of postoperative insanity. Werth notes that it occurred in six if three hundred cases subjected to gynecological operation. Weiss records seven instances of postoperative delirium in 700 operations. Denis, as the result of statistical study, based especially on gynecological practice, believes that postoperative psychoses occur in about 2.5 per cent. of cases. Croom, of a thousand operations, notes four cases of mental disturbance.

In all cases of delirium, melancholia, and other mental disturbances following surgical intervention are to be classed as postoperative, doubtless a percentage considerably larger than is noted in the foregoing reports should be recorded. It is well known that heavy drinkers are extremely liable to an outbreak of delirium tremens subsequent either to an accidental wound or an operative procedure. Moreover, there are certain drugs which are especially prone to cause such disturbances, and among these may be named iodoform, which has so often caused cerebral disturbances that some surgeons have asserted that it is invariably the etiological factor in postoperative insanity that cannot otherwise be accounted for. The absorption of ptomaines or of septive material from infected wounds may occasion psychical disturbances quite independent of operation, while organic diseases of the kidneys, of the intestinal tract, or of the central nervous system, may first manifest themselves after operative procedure, and by acting upon the cerebrum may occasion perversions which have too often been attributed to the operation itself.

If these well known causes of loss of mental equilibrium be excluded, there remains a very small percentage of cases in which there will develop after operation a usually temporary loss of mental balance, which can only be ascribed to the psychical shock of the operation.

It does not appear that the more formidable operations produce greater tendency to such disturbances. They are particularly likely to follow operations upon the eye, and are doubtless due in part to the fear or apprehension of the patient preceding the operation, and possibly to the confinement in the dark which such operations necessarily entail. Also it is probable that the frequency of postoperative insanity after operations upon the eye is due to the fact that many of these patients are well advanced in years and are suffering from senile degenerative processes.

Engelhardt as the result of an exhaustive study of this subject concludes that postoperative psychoses develop most frequently in those predisposed by heredity, chronic intoxication, age, or anxiety and fright. The shock and exhaustion incident to operation can be regarded at most as the exciting causes in those with distinct predisposition. There are, however, exceptional cases which cannot be well accounted for.

As for the therapeutic indications, care in the use of iodoform, the skillful administration of anesthetics, attention to the condition of the alimentary tract and of the kidneys, and some attention to allaying the terror with which many patients look forward to anesthesia and operations, represent practically the only means at our disposal by which this postoperative complication may be avoided."

Medical Attention in Public Places.

The Interstate Medical Journal says: It is a matter of fact that knowledge of "first aid to the injured," emergency medicine, comes in good stead in many instances, and

that quick thought and prompt action often saves lives that would otherwise be irretrievably lost. Many accidents occur in theatres, in public halls, and in restaurants. In most cases the physician is sure to be conspicuous by his absence, and dire consequences often ensue before he can be summoned. The practice of placing physicians in theaters is largely in vogue in the European cities. In Berlin each theater has an attending physician, who is bound to attend each performance or else send a substitute when he cannot come. By this means much good has been done. And yet, even the presence of the physician in a crowded place, such as a theater necessarily must be, does not always mean that prompt action can be forthcoming, and for this reason: the physician may be on the spot and all that, but yet he lacks all the accessories which are called for—trained assistants, etc., a suitable room, etc.

A movement has been started in Paris to install in each theater, public hall, circus and large cafe a "medical loge," where there will be an armamentarium complete enough to do all kinds of emergency work, with a trained assistant, operating table, etc. This isn't a bad idea, and might well be followed up in America, where accidents are proportionately more common than in the continental cities. It may not be often of service, but when the occasion *does* arise it is—like other things—badly needed and hurriedly, too, so that a single case in a year may furnish sufficient excuse for the installation thereof.

Certainly the expense of the venture should not deter a conscientious management in starting it; it only needs the attention of enterprising medical men to "push it along."

Quackery and Empiricism.

The subject of quackery and empiricism is discussed in the American Practitioner and News as follows:

The calling of the professional scientist excepted, it is remarkable that of the great learned professions medicine is the only one that rests upon a scientific basis. And the dream of the optimist, which will doubtless be realized before the close of the twentieth century, is that medicine will eliminate all hair-brained theory and empirical practice and rest, as surgery now rests, upon strict science and the skill, art, and handicraft of him who practices it. There are no quack surgeons, though in certain small specialties quacks may and do practice surgical measures; but to be successful in these the quack must and does have real skill and some science. In internal medicine the case is different, since a certain amount of empiricism must enter into the therapeutic practices of the most learned and conscientious physician. And it is right here on this debatable ground that the quack is able to fool the public and line his coffers with their gold.

Says Oliver Wendell Holmes: "What is the strength of all quackery? Hope kept alive. What is often the too fatal gift of science? A prognosis of despair." And so our very science is sometimes turned against us by the quack, causing us now and then to "be hoist by our own petard."

Quackery is said to be alarmingly on the increase in these latter days, but we take it that the quack himself is far less a menace to legitimate medicine than the spirit of quackery that is wafted abroad among the people. Every means for the dissemination of intelligence is employed by quackery for the imposition of itself upon the people. There is no medical discovery of the chemist or therapeutist that is not at once seized upon by unprincipled men and straightway advertised as a secret nostrum for the cure of disease. But the patent medicine man working the public through flaming advertisements is by no means so damaging to legitimate medicine as the same old sharper in his new role of proprietary medicine man. For by his methods the unwary doctor is made to directly lure the public to the counter of the nostrum vender, and the medicine concoctor is made to roll in wealth, while the doctor is left by the wayside to pick up a living as best he can.

It is amazing to see how nearly all young physicians and not a few older ones are deceived by the peddlers of purloined doctor's prescriptions, sold without formulæ appended under fancy copyrighted names. The physician who practices medicine on such a materia medica does not and can not know what he is giving the patient, must often fly in the face of Sydenham's aphorism, *primum est non nocere*, and is bound sooner or later to degenerate into a mere empiricist. Moreover, he must be short sighted, indeed, if he does not see that he is giving the putter of known drugs into unknown compounds of strangely unscientific names a pull through him upon the public that will cause his clientele in all slight ailments to leave him out and take the short cut to the drug store, while the serious ailments are often practiced upon by the druggist, the neighbors and the wiseacres of the family, to the patient's hurt or death, the doctr being called only as a matter of necessity when the case assumes serious or alarming characters.

Another hindrance to the doctor's progress in a business way is the piracy of his prescriptions. They are not only endlessly refilled for the patient by the druggist without the doctor's leave; but they are duplicated in copy for the whole neighborhood, and sent in letters to the kinsfolk, friends, and acquaintances of the patient throughout the civilized world. We have heard a druggist boast that his prescription file was worth in refills far more to him in a year than all the new prescriptions that came to his counter.

But time and space forbid at this writing further details to the point, though the material is superabundant. Indeed, the medical optimist in contemplating the state of medicine at the beginning of the new century must see an Augean stable awaiting the Hercules of reform to cleanse it before his dream can be realized. Nevertheless we believe that the reformers and the reform will come in due time. For medicine is rapidly assuming the state of an exact science, and when that point is reached quackery will have had its day.

Relapses in Fevers.

The Medical Press and Circular says: Scientific investigation has clearly demonstrated in the blood of typhoid patients the presence of protective or antibacterial substances found in no inconsiderable amount towards the end of the fever and during convalescence, and this fact has given rise to much conjecture as to the reason why relapses should occur in diseases caused by bacterial invasions, and as to their nature. To put the matter briefly, we require to know how it comes to pass that an individual who has become infected with typhoid bacillus, and whose blood contains substances which are inimical to this bacillus, should again fall a prey to the same bacillus. The following theory has been advanced by Durham, and is a carefully drawn inference from a number of observed facts, and it certainly seems to dispose of the difficulties. A disease must not be looked upon as a result of the action of a number of identical infecting agents, but rather as a result of the action of some of a number of infecting agents each of which is similar but not identical in its nature. An apparently simple infection with a given microbe is in reality a complex phenomenon brought about by a number of varieties and sub-varieties of a given microbe. An infection may be termed normal in which the numbers of the infecting agents belonging to the different varieties are more or less equal, an abnormal infection may be described as one in which one or other of the varieties preponderates. For the acceptance of this theory it must be granted that each of the varieties leads to the production of a corresponding antitoxin within the organism. In a case of normal infection, and so long as it continues to be normal, there will be no tendency for any unit to preponderate, each will be affected equally, and there will be no opportunity for a relapse. On the other hand, in an abnormal affection, although the individual is highly protected against certain units, he is obviously liable to relapse if one or more of the other units begin to multiply actively and gain a fresh hold upon the system. Much confirmatory evidence might be brought forward in favor of this view from a consideration of the conditions and phenomena connected with anti-streptococcic serum, and the clinical experience of facial erysipelas can also be quoted as evidence tending towards the acceptance of this very plausible theory.

A Study of British Genius.

In the Philadelphia Medical Journal we find that Mr. Havelock Ellis has been publishing in the Popular Science Monthly a paper on this subject which contains some items of special interest for medical readers. As a study in heredity and environment the paper has, of course, a general interest for the limited class of physicians who concern themselves with these topics; but it also contains things here and there which challenge the attention of all medical men because of what we may call a personal or professional bearing, Mr. Ellis' first care, of course, in making a statistical study was to select his material, and it is right at this point that he excites criticism. He proceeded, according to a law of his own, by picking from the "Dictionary of National Biography" the names of such Britons, in all fields of mental activity, as seemed to himself to have been endowed with genius. He finds that the doctors make an "unexpectedly small group." He discovered that Great Britian has produced no fewer than 859 men of more or less genius (according to Havelock Ellis and the aforesaid "Dictionary",) but in this goodly sized group there were only 7 doctors. This alleged fact is all the more depressing because the group is not confined to moderns but goes all the way back to St. Boniface and Duns Scotus. These 7 doctors are Linacre, Caius, Mead, Pott, Sydenham, Cheselden, and Cullen. We know not what assistance Mr, Ellis had, if he had any, in making this selection, and we must acknowledge that these names are fairly

representative, but we cannot see by what principle of exclusion the names of Harvey, Jenner, John Hunter, and Lister, not to mention a few others, were left out of the list of medical men. Mr. Ellis explains that eminent physicians sometimes win fame in the domains of pure science, and cannot be strictly classed with their profession. This was true of Huxley, who is not included anywhere in the lists, but it certainly was not true of the four just named, all of whom are listed by Mr. Ellis with the men of science. Sir Thomas Browne is placed among the men of letters, but his profession will not let him go without a remonstrance. Erasmus Darwin also was an M.D. We protest that all this is unjust to the medical profession, and goes far to invalidate Mr. Ellis' conclusions.

Among these conclusions is one respecting the parentage of 640 of these men of genius. But 2.9% of them had physicians for fathers, while 12.5% were the sons of of clergymen, and 5.4% were sons of lawyers. The inferences to be drawn from these figures are somewhat problematical, but the figures should not be taken to imply (as Mr. Ellis might lead one to do) that doctors do not procreate as brainy sons as do clergymen and lawyers. This inference, based on such figures, would be preposterous. The social status and customs in England probably influence these results. This is shown by the fact that the church outnumbers all the other professions together—law, medicine, and the army—in this matter of begetting men of genius. It is curious, perhaps, although army officers and clergymen are often the fathers of sons eminent in these respective professions. But Charles Darwin was the son of a physician, as also Landor, the man of letters—at least, so we infer from Mr. Ellis. Edward Forbes, the naturalist, was a student of medicine. In the case of Oliver Goldsmith, who was a physician, we perhaps have no right to set up much of a claim.

A New Test for Sugar.

This interesting new test for sugar is given in The Interstate Medical Journal:

While it is true that we have a variety of tests for sugar in the urine, still we say, with all ardor, "the more the merrier." It is quite satisfactory to accept the fermentation or the phenylhydrazin test of sugar as reliable agents, but we cannot say the same for the other tests commonly used in the clinical laboratory. A new test which has been tried very conscientiously by Gebhardt at the Medical Clinic of the University of Ofen-Pest is that called the "nitropropiol test for sugar. In combination with sugar, nitropropiol forms first a green color, and then an indigo blue, due to the formation of indigo. The reduction of orthonitrophenylpropiol with dextrose was first pointed out by A. Baeyer in 1880. The firm Koln-Ehrenfelder Fabrik Teusch make a tablet of nitropropiol with sodium carbonate for use as a sugar test. The test is made by dissolving one of these tablets in ten ccm. distilled water, adding ten drops of urine, and then slowly heating the solution for three or four minutes in a test-tube, whereupon, if sugar be present, we get a blue-colored fluid; and, when the fluid is allowed to stand, we see plainly a deposit of indigo at the bottom of the tube. If the tube color is not distinct, then it is recommended to shake a little chloroform with the mixture. The chloroform absorbs the indigo, sinks to the bottom of the tube by reason of its greater specific gravity, and we see it as a blue colored mass of fluid below.

It is positive that this reaction obtains only in the presence of sugar. Furthermore, it gives no reaction with bile, with albumins or pus. The reaction is not hindered by the presence of a small amount of albumins, but where it exists in large quantity then it is better to remove the excess of albumins by shaking with salt solution and chloroform and filtration. Again, patients who are taking different medicaments do not show this test with these medicaments which are excreted in the urine; for instance, benzoic acid, chloralhydrate, guaiacol, iodine, rhubarb, salicylic acid, senna, and turpentine. Kreatinin and glycogenic acid do not give the reaction. The test is extremely delicate, showing surgar in 0.03 per cent. solutions; solutions of 0.025 gms. sugar in 100 gms. water showed only the green color.

This test is of decided utility and should speedily come into general use. It is delicate and has no drawbacks. The tablets used for making the test are very cheap—in Germany. They are sold in packets of twenty-five tablets for about fifteen cents. It is easily performed, requiries no waiting and no complicated apparatus, and so should appeal forcibly to the general worker. So far no substances have been found besides sagar that will reduce nitropropiol in urine.

Is There a Pro as well as a Con in the Matter of Hazing.

The subject of hazing has been very fluently discussed during the past twelve months. The Journal of Medicine and Science is of the opinion that it was a very

wise philosopher of the ancient time who declared that however many times you may break a stick it always has two ends. Of late papers, magazines and journals have teemed with tirade, invective, and hysterics hurled red-hot at the so-called barbarous practice of hazing, until the unprejudiced observer seems forced to conclude that either the writers have forgotten their salad days, or else that they have been over-swayed by a sickly sentimentality or a morbid anxiety to be subservient to the opinion of the hour.

Since there are always two sides to every question there must be something to be said on the other side of this one. Hazing can be made a very bad thing, and sometimes it undoubtedly is carried too far, but for all that we are sure that deep down within them every schoolboy who is now at school, and every boy of larger growth who has not forgotten his sophomore days will agree with us that often, very often, it exercises only a salutary effect, and is an efficient means of making the unfit more fit. Carlyle has well said that every boy is bound to pass through a stage which he has called "the fool age," a time when it would be well for himself and others if the youngster could be headed up in a barrel and fed through the bung-hole. This fool age is comprised between the 16th and 20th year; at that time egotism reigns supreme and when we look back we all confess that we thought we knew more when we were graduated from the high school than we have ever dared to know since. This, too, is the age at which students appear at college, military and navil schools as "freshies."

Every man knows that in every class of one hundred students there are always a greater or less number of unlicked cubs whose principal stock in trade is self-conceit and a love of authority. Now boys are not by any means wanting in discrimination and it does not take them long to size up and read aright the physical, mental and moral qualities of their companions. In a few days the bullies, the prigs, the cads, the yawps, the mollycoddles and the sneaks are known—a class who must of necessity have something done to them before they can possibly be any good to themselves or anybody else—and so soon as they are known, their comrades proceed forthwith to take it out of them, or put it into them, as the exegencies of the case seem to demand.

It was that brilliant Scotch wit, Vicar Hawker, who declared that conceit is the compensation afforded by benignant nature for mental deficiency, and schoolboys know that taking the deceit out of a student is the first step, and that, too, a necessary one, in the process of preparing the mind for instruction and development. You cannot make a man out of a wart, a solder out of a lob.lolly-boy, nor an officer of tact, courage and judgment out of a domineering, conceited prig.

The students upon which hazing is usually practiced are those of the classes we have described, and we are certain that very seldom is a modest, well-intended student or cadet ever hazed beyond the point of easy endurance. More than this we are just as sure that the medicine administered to the bullies, the cads, the mollycoddles, and the freshies is the first step in the process of making men of them.

To be sure in every school there are always students with bullying tendencies, young men deficient in mental and moral attributes who aim to rule by brute strength and the power of might, and such hectors are apt to carry hazing too far, but such bullies are not upheld by their comrades and generally they are the most hated men in the school.

Diphtheria.

The Journal of the American Medical Association says that there are few chapters in the history of medicine more interesting and more complete than that of the evolution of our knowledge of diphtheria; and the stages by which this advance has been made have been the result not of accident nor of chance, but of systematic and industrious investigation of the best scientific character, interpreted by a high order of intelligence. Ulcerous and membranous anginas have long been recognized and described, but the first severe and widespread epidemics of recent times are recorded as having occurred in the seventeenth and eighteenth centuries. During the early part of the nineteenth century France was assailed by numerous disastrous epidemics, which played sad havoc, even among the royalty, so that Napoleon I., in 1807, offered a prize for the best essay on croup. Great confusion regarding this disease existed until Bretonneau published his famous work in 1826.

Escherich, in an interesting communication, discusses the changes that have taken place in the clinical conception of the term diphtheria in the course of the past century, especially as a result of bacteriologic investigation, as well as certain related topics. Bretonneau not only verified previous descriptions of the disease, its dessimination by contagion, the appearance of the deposit, the stenotic and toxic characteristics

of its course, and the varying localization and sequels; but he further establishes the pathologic-anatomic basis of these manifestations. From epidemiologic and post-mortem considerations, he divined the specificity of the disease, and suggested the existence of a living contagium. Clinically, he recognized the identity of croup and diphtheria, attaching the greater importance, however, to the effects of laryngeal obstruction, to the neglect of the symptoms of intoxication. He appreciated the utility of tracheotomy and practiced it successfully. Trousseau, a friend and pupil of Brotonneau, laid great stress on the toxic manifestations, and considered the disease a general one with local lesions.

Confusion arose from the application of the terms croupous and diphtheritic to fibrinous or membranous deposits upon mucous membranes in general, and the inclusion of all superficial necrotic lesions of wounds and the various mucous membranes, especially the tonsils in cases of scarlet fever, under true diphtheria. The final and decisive discrimination was, however, not reached until the discovery by Klebs, in 1883, and the cultivation by Lœffler, in 1884, of the diphtheria bacillus. This was followed by the isolation of the toxin generated by the bacillus, and this, in turn, by the development of immunizing methods in animals, and finally, in 1894, by the preparation of the antitoxin—the entire series of events constituting one of the most brilliant and most beneficent discoveries in the history of medicine. The severity and the course of the disease were at first attributed directly to the virulence and the number of the active bacilli, but evidence was soon discovered showing that those conditions are due in no small measure to the state of the body, and that this is probably dependent on the presence of protective substances. An additional factor is to be found in the existence of mixed infection, the part with streptococci.

The most important feature of the advance in our knowledge of diphtheria consists in the treatment and its results. Debilitating and antiphlogistic means were superseded by general supporting and vigorous local treatment with astringents, caustics and antiseptics, while tracheotomy and later intubation came into practice for the relief of stenosis. The use of steam for inhalation proved a useful adjunct. The results of treatment were, however, unreliable and unsatisfactory until the discovery of the antitoxin in 1894. Since then the mortality has been cut in half, the gain being most marked the earlier the specific remedy is employed and the dose chosen sufficiently large. The necessity for surgical intervention has also become less, and, when it has been required, the results have been better than heretofore, while complications and sequelæ are more uncommon. The prophylactic value of the anti-toxin is somewhat impaired by the circumstance that the immunity conferred is of brief and uncertain duration, but evidence exists showing that it may nevertheless be successfully directed to the breaking up of epidemics in hospitals and other institutions, and in private dwellings. In the treatment, it cannot be too forcibly emphasized that the dose to be employed is the largest that the severity of the case indicates, and its repetition will be influenced by the same criterion. An important point to be appreciated is the necessity for employing as concentrated solutions as possible, as secondary effects as have been observed after injection of the antitoxin are due not to the active principles but to the serum in which they are dissolved. The two possible contraindications to the use of the antitoxin consist in the presence of nephritis and the so-called lymphatic constitution.

Some Facts in Regard to the Treatment of Influenza.

The Therapeutic Gazette says: There are very few diseases which in their early stages produce such mild symptoms, and which on the other hand are capable of being so rapidly fatal in their results, as influenza. There is probably no malady in which careful nursing and the avoidance of exposure will so certainly produce recovery in the ordinary individual as this disease; and conversely, there is no illness which if subjected to poor nursing associated with exposure is capable of producing more serious consequences. While the patient may feel generally wretched in the early stages of invasion, he does not feel sufficiently ill to force him to his bed. His fever is often moderate, and strength at this period is not sufficiently decreased to impress upon his mind the necessity of its preservation by absolute rest. The result is that very frequently the patient keeps on his feet, as does a case of walking typhoid fever, until his vital energies are so sapped that he becomes not only bed-ridden but in desperate straits, and then it is that the physician is called upon with the expectation that he will give speedy relief. Unfortunately, in many of these cases, consolidation of the lung, feebleness of the heart muscle, or renal complications are important factors in the case which cannot be speedily dissipated, and which often resist all our efforts at betterment.

Undoubtedly much more can be done in the way of prophylaxis when a person is taken ill with influenza than can be accomplished by active medicinal interference, and the prospects of rapid recovery are always in direct proportion to the willingness of the patient to lie by for a few days when he is first taken ill. Ever since the great epidemic of influenza which swept over the country in 1889 and 1890 and there abouts, physicians have constantly met with cases of cardiac disease which have dated their illness from the attack of grippe suffered at that time. Many of these patients previous to that epidemic were already sufferers from valvular affections of the heart, but were unconscious of the valvular defect until the influenzal poison so sapped the strength of their heart muscle that a rupture of compensation occurred. In other instances persons who had previous to that illness perfectly healthy hearts have now apparently perfect valves, but nevertheless suffer from evidence of heart feebleness, continuously or upon marked exertion. In these cases the influenzal poison seems to have expended its energy solely upon the heart muscle and produced a cardiac asthenia which it is often impossible to overcome. Many of these cases of cardiac asthenia depend upon the patient having disregarded his physician's advice and insisted upon getting out of bed before the heart muscle had time to recover from the disease. Every patient should be told when taken ill with influenza that the surest way to reach perfect recovery is to call upon all the vital functions of his body to the least possible extent duting his illness, resting assured that the old motto of "Make haste slowly" holds true most emphatically in this disease. In many instances no other treatment than this advice is really needed, although in many of them it is advisable from the very beginning of the illness to administer some mild alkaline diuretic, which is perhaps best represented by the following prescription:

℞. Potassii citratis, ʒij.
Spiritus ætheris nitrosi, fʒj.
Aquæ dest., q. s. ad fʒiv.
M. S. Dessertspoonful every 4 hours.

This prescription will maintain urinary flow, the slightly antipyretic in its influence, will perhaps aid in the destruction of the toxic materials, and certainly will aid in their elimination by the kidneys; and it cannot be doubted that free diuritics of the body is an important part of the treatment of all infectious diseases.

For the muscular and bone pains of influenza the application of a hot-water bag or hot brick to the part of the body which is in greatest suffering will often be efficacious, and is much better than the administration of coal-tar products, which are apt to help produce cyanosis and nervous depression and which give the kidneys additional work in elimination. But if these symptoms are marked, acetanilid in what is well known as the migraine tablets, which contains two grains of acetanilid, half a grain of citrated caffeine, and one grain of monobromated camphor, may be administered several times a day; or in its place phenacetine and salol, as these preparations seem to depress the circulation less than some of the other coal-tar combinations.

If an irritable cough, unassociated with distinct bronchial or pulmonary trouble, annoys the patient, doses of codeine, say one-tenth to one-fifth of a grain, may be administered several times a day with advantage; and if headache is marked and of a congestive type, with cold in the head and frontal fullness, a hot mustard foot-bath repeated several times a day will often give relief, and is a much better method of treatment than the administration of drugs.

In some cases of influenza the heart seems to be considerably depressed by the action of the disease, and if it is necessary to administer stimulants. But in the great majority of instances, if the patient will remain flat on his back in bed the use of stimulants is unnecessary, and if they can be avoided it is best not to administer them. If they are given, moderate doses of the alcoholic stimulants are probably best, particulary if whiskey or brandy is administered, in the form of hot lemonade, which, while acting as a stimulant to the circulatory system, will also increase the activity of the skin and kidneys in eliminating toxic materials. We do not think that the fever ought ever to be lowered by coal-tar products, but always by sponging with tepid water; or if the temperature is very high, by the use of the so-called sponging or rubbing of the body with a small piece of ice, using active friction with the other hand, and keeping cold applied to the head so as to avoid cerebral congestion during the sponging. Where patients object to the use of cold water or ice, alcohol and water, half and half, may be employed, and in other instances a mixture of equal parts of warm vinegar, warm water, and alcohol may be used with advantage, in that sponging with this liquid not only cools the skin but opens the pores, washes off effete materials, soothes the peripheral sensory nerves, and by so doing tends to produce sleep.

Another drug which is of value because of its influence in increasing secretion of the skin, and because it relieves pain in the muscles and bones, is Dover's powder. But

this substance often seems to produce secondary depression in blond, sanguine persons, and because of the opium it contains is liable to increase constipation, which should not be encouraged in the presence of a condition where it is desirable to aid in elimination as much as possible.

Lunacy in India.

The British Medical Journal has the following in regard to lunacy: "The facts as regards the number and treatment of lunatics in India are remarkable. The census of 1891 revealed a proportion of 5 insane persons for every 10,000 of population as against a corresponding proportion of 33 in England. Making all due allowance for the difficulties attending an accurate numeration of this sort in such a country as India, including among these difficulties the probability that there is extensive concealment, there can be no question that the amount of lunacy there is moderate, and of this amount only a small fraction has hitherto demanded State interference. The majority of lunatics are detained and cared for at home, and there is no reason to believe that they are treated otherwise than humanely. Those of them who endanger the public safety and peril to life or property attract the attention of the police, and are removed and segregated. The voluntary consignment of troublesome lunatics to public asylums—there are no private asylums in India—is a rare occurrence. Lunatics who, having commitied crimes, are found to be unable to stand their trial on account of their insanity, are necessarily detained in asylums until they recover, or for life if they do not recover; and prisoners becoming insane in gaols are also transferred to asylums as long as their insanity lasts, unless their friends, on completion of their term of imprisonment, undertake the charge of them. A large number of the lunatics who cause trouble or danger are persons suffering from hemp intoxication, and these recover quickly.

Thus it happens that the number of lunatic asylums in India is very small, and the number of persons confined in them limited. For example, in the Province of Bengal, with a population of over 71 millions, there are only five public asylums, containing 902 lunatics, of whom about 50 per cent. are criminals and about 20 per cent. females. The policy of Government is to discharge patients who are harmless, and whose friends are willing to take care of them. The total number of inmates, therefore, does not undergo any increase—rather the contrary; but there is a tendency to slight increase in the number of so-called criminal lunatics. Indian asylums are very different places from English asylums. The construction, arrangements, and management are of a very simple kind, and the clothing, feeding, and treatment of the inmates are also less elaborate and costly.

The charge of the institutions has hitherto been committed to civil surgeons, who may or may not have made a special study of lunacy, and served in a lunatic asylum at home, before entering the service, and the appointment is held in addition to other duties of a multifarious and onerous description. The establishment consists of a hospital assistant, a native or Eurasian overseer, and a staff of attendants and nurses. Employment is the chief moral agency used, and recreations of a simple and suitable kind are provided. Both the Government and the medical executive have endeavored to render these places as comfortable and useful as possible, and a recovery-rate of 10 to 15 per cent. of average population attests considerable success. The usual death-rate is about 9 per cent., which cannot be considered excessive. In the early days of British rule in India lunatics were confined in gaols or in special wards attached to them, and this practice is still the rule in some native States. Latterly it has become apparent that reform is needed as regards the supervision and management of these institutions, and at the instance of Surgeon-General Harvey, the present Director-General of the Indian Medical Service, new arrangements have been sanctioned by the Secretary of State for India, and are to be adopted forthwith.

Under this scheme a few large central asylums are to be built and organized to accommodate the majority of the lunatics belonging to the several provinces and placed under the exclusive charge of specialists. In these asylums all the methods and appliances which have been found to be of service in the treatment of lunacy are to be put in operation. They will also serve as schools of systematic and clinical instruction in psychological medicine, asylum management, and treatment of the insane.

Arragements have already been made for organizing asylums of this kind in Bengal, Madras, Bombay, the North-Western Provinces, and the Punjab. Some of the existing smaller asylums will be closed, and others retained on their present footing for special reasons—geographical and other.

Selection to the charge of these institutions will not be necessarily limited to the Indian Medical Service, the prime consideration of special knowledge and experience

being an indispensable condition. Many officers belonging to this Service have studied insanity and served in asylums before joining, and the new arrangements will present a new object of work and ambition to candidates. It is consistent with the history and traditions of the Service to believe that suitable and skilled men will be forthcoming. The pay of these appointments has been arranged on a liberal scale—ranging from Rs.600 to Rs.1,400 a month, according to length of service, with free house and the privilege of engaging in consulting practice. These rates are about 50 per cent. higher than full regimental pay, and ought to attract good men.

This new departure is an excellent one from every point of view, and will, we hope, prove the commencement of a thorough revision of the conditions and remuneration of the medical services at the Indian Empire."

The Prevention of Venereal Diseases.

There is no subject that demands our more careful attention and consideration than the prevention of Venereal Diseases. The Journal of the American Medical Association says:

"Although gonorrhea, chancroid and syphilis are occasionally conveyed through other channels than that of sexual intercourse, such a mode of transmission must be looked upon as exceptional and accidental; and the diseases, therefore, are with propriety designated venereal. That all are more prevalent than is good for the welfare of society, no one will doubt or deny, and despite various attempts, no measure yet applied has proved successful in their prevention. While the actual exciting agents of syphilis and chancroid have not been isolated with accepted certainty, sufficient is neverthless known with regard to the mode of propagating these diseases, as well as gonorrhea—the exciting agent of which is agreed to be the gonococcus—to indicate clearly the lines upon which their spread is to be prevented and their ravages restricted. While it must be obvious that as a result of such knowledge much can be done to limit infection, by observance of the principles of asepsis and antisepsis the most important prophylactic measure must ever remain avoidance, so far as possible, of exposure to the risk of infection.

As the outcome of an investigation made by a special committee of the Section on State Medicine of the American Medical Association, appointed to inquire into the questions whether and when a patient who has suffered from an attack of gonorrhea may be permitted to marry, and whether the matter is a proper one for regulation by statute, an affirmative answer was given to the first and a negative to the second, in last week's Journal. Consent to marry is made permissible only after it can be said positively that in all human probability the patient is no longer infective. In the minds of the Committee, "it is doubtful whether any plan of examination of prostitutes or any plan requiring a report to health authorities of cases of gonorrhea occurring in the hands of general practitioners and specialists can be made practicable."

With regard to syphilis, Dr. L. D. Bulkley (p. 936) makes a plea that, by reason of the injury it inflicts upon the public health, imperilling not alone those who have been guilty of sexual transgression, but also those who are quite innocent, the disease should, like other transmissible diseases, be placed under the control of the health authorities. In the course of a discussion on the "Ravages of the Venereal Diseases," recently held before the Pyhsicians' Club of Chicago, Judge Lorin C. Collins pointed out the difficulty in reaching an agreement as to proper legislation to be enacted for the purpose of controlling and diminishing venereal diseases, and the obstacles likely to be encountered both in its enactment and in its enforcement. In the course of the same discussion, Dr. Edmund Andrews struck the keynote of the situation in urging education of the public upon the subject of venereal diseases, in order that it may for itself realize the dangers, and intelligently apply the preventive and corrective measures, individually and collectively. The wisdom of such a course seems to have been appreciated by the German Department of Education, under whose auspices a series of public lectures on Syphilis and Gonorrhea has been delivered by prominent authorities at the Charité Hospital of Berlin and which, after publication in the Berliner klinische Wochenschrift, are to be reprinted for distribution among the students at the German universities and among the troops. A course of free clinical lectures on Syphilis for physicians was begun on March 6 at the New York Skin and Cancer Hospital, to continue on successive Wednesday evenings until May 1.

The question is a most important one, and its regulation is likely to continue, as it has in the past proved to be a most difficult undertaking. It is clear, however, that the desired results are to be secured, not through any single means, but from a combination of all. The most important of these, as striking at the root of the evil, in-

cludes a full knowledge of the nature of the disease, the methods by which they are conveyed, as well as the means by which such conveyance is to be prevented, and the adoption of all possible measures of prophylaxis, moral and physical, together with the most rigorous and systematic treatment in private and public alike."

Bubonic Plague Not Dreaded.

The Treasury Department on January 20th appointed a commission to investigate the alleged bubonic plague conditions at San Francisco, there being a controvery between the municipal authorities and the State officials on the point whether there was a genuine case of the plague in the city, the municipal authorities affirming the existence of it. As reported in the Medical News, the commission consisted of Prof. Simon Flexner, of the University of Pennsylvania; Prof. F. G. Novy, of Ann Arbor, and Prof. L. F. Barker, of the University of Chicago. Their report has been completed and submitted to Secretary Gage. According to a Philadelphia daily Prof. Flexner was asked to say something about the nature of the report. "I cannot, of course," he said, "make any definite statement as to the opinion of our committee, or even as to our work, until the proper authorities have published our report. There is, however, so marked, and perhaps so natural a tendency in every community to worry over a thing of this sort that I am very glad to say that there is no occasion anywhere in the United States for any alarm." Prof. Flexner would offend against ethics, says the Sun, if he were to say that the bubonic plague had appeared in San Francisco. But supposing the existence of it to be proved there would be no cause for apprehension, judging from the success with which the medical men have combated the disease wherever it has been diagnosed. It has been proved that it thrives on dirt and bad ventilation, and quickly succumbs to prompt sanitary measures. In a squalid tenement distric it would be dangerous only so long as the houses could not be cleaned and disinfected. The bubonic plague caused a scare when it first appeared in Glasgow, but its spread was soon checked and the deaths that occurred did not show a high mortality rate. There were familiar diseases prevalent at the same time which were more deadly. The plague was also reported at Manila, and there were fears for our army. They soon subsided, for the once dreaded fever overran no quarter. It is now officially existent in South Africa, but although the health of the Britsh army is avowedly very bad, the medical staff is losing no sleep over the sporadic cases of bubonic plague. Historically, its reputation could not be worse, but either it has lost its virulence or modern science is able to control it almost at will.—*Medical News.*

The Cause of Vaccinia and Variola.

According to the Philadelphia Medical Journal, there has been no lack of reports concerning the cause of vaccinia, but in spite of the claims of a number of investigators that the cause is a bacterial one, it must be said the protozoa described years ago by Guarneri, Pfeiffer, and others, have, perhaps, the greatest number of points in their favor as the actual cause of the affection. The active interest awakened by the earlier reports concerning these organisms have quieted down, because of the years that have passed without any addition to our knoweldge concerning them. New interest has, however, been added to these organisms by the recent report of Funck (Deutsch Med. Woch., Feb. 28, 1901), who states very positively that they are the cause of vaccinia; indeed, the very positiveness of his statements is likely to arouse a certain degree of skepticism. The results he has obtained are, however, of value, and a more complete report will be awaited with interest. The organisms described are apparently actually those written of nearly fifteen years ago by the authors mentioned, though Funck gives further details concerning their morphology, and contributes some additional points concerning the method of demonstrating and studying them. The chief point upon which he bases his statement that he has demonstrated their etiological relation to vaccinia, is his observation that while the individual organisms are small and range from 1 to 3 microns in diameter, large cyst-like bodies, which have a diameter as great as 25 microns, were often to be seen, and these were, by careful examination, shown to be filled with spores. A culture, in a bacteriological sense, of those protozoa, cannot be made, but Funck states that he took so-called sterile lymph which contained only a small number of the protozoa, and was therefore much more readily examined than the contents of pustules, smeared this lymph over the surface of an ordinary agar plate, and placed it in the thermostat for 24 hours. Examination at the end of this time by means of a low power of the microscope enabled him to pick out the large spore-containing cysts with readiness, and by means of a fine platinum needle he isolated these cysts, and used them for purposes of injection. The

injections produced what he believed was a typical vaccinia, and after suffering from this disease, the animals were immune to inoculation directly from vaccinia pustules. He states that the protozoa can, by his more complete and accurate methods of examination, be found in all vaccinia pustules and in the immediately surrounding tissues, and he considers that their constant presence in the disease, together with the fact that injection of the isolated sporoblasts, produces typical vaccinia, demonstrates conclusively that they are the cause of vaccinia. He was also able to find protozoa of identical appearance in a case of variola, and concludes from this that the two diseases are due to the same cause, differences in the virulence of the protozoa being the cause of the variations in the results of infections produced by them. It has been quite thoroughly established that cowpox is actually a modified form of spallpox, and one cannot reasonably object to Funck's conclusion that variola and vaccinia are due to the same cause. It may, however, be properly stated that the investigations reported do not fully support the statement made by Funck. There are too many possibilities of contamination in the method used to exclude the possibility that some other infection was introduced at the same time with the sporoblasts. The results described, however, do approach fairly closely to a demonstration that these protozoa are the cause of vaccinia, and, with our present knowledge, it seems highly probable that if they are the cause of vaccinia, their virulence becoming increased, they may also be the cause of variola. This report, taken in conjunction with the older reports concerning the same organisms, constitutes the most interesting contribution yet made to the nature of the specific cause of these two affections.

Tuberculosis Among the Poor.

The New York Medical Record says: The terrible ravages of pulmonary tuberculosis among the poor is only too vividly shown in the statistics recently published by the prefect of police of Paris, while it appears that among the rich the mortity is comparatively light. To be sure, that the rich furnish fewer deaths from consumption in a city's statistics can in part be explained by the fact that they have the means to seek better climates and thus die away from hrome, and they have earlier medical attention and hence an early diagnosis, and that better food and more leisure allow them a chance for recovery; and, on the other hand, that the disease, being of a chronic nature and thus gradually impairing the earning capacity of the individual suffering from it, forces him step by step into poorer and yet poorer quarters until, from a simple lack of funds, he ends his days in the worst and cheapest districts. Notwithstanding all these considerations, the statistics point only too clearly the lesson that good surroundings mean comparative immunity. According to the prefect's report, the average number of deaths per ten thousand inhabitants is, in the poorest quarters, sixty-five; in the quarters occupied by the working class, somewhat less; in the well-to-do quarters, thirty-five, and in the richest districts only twenty. To make the lesson still more obvious, the report shows that only fourteen deaths per ten thousand per annum occurred in the Champs Elysees quarter, while in the Buttes-Chaumont district it reached sixty-nine, nearly five times as large a number.

In Hamburg the statistical evidence, as given by Gebhart, points the same moral; for, according to him, the death rate among those having less than $500 per annum income is forty per ten thousand, while among those whose income is above that figure the rate is but fifteen per ten thousand.

Can we not learn from these proofs, better than from any history, that the efforts of our various boards of health should in future be directed toward bettering the hygienic conditions existing in the poorer quarters, rather than in the segregation of the individuals already affected? The enforced limitation of building-space on specified land areas, the control of the height of buildings used as lodging-places, the assured entrance of light and air—the best of all disinfectants—into each and every room, all these would constitute practical, applicable and effective means of checking this white plague. Would it, in the end, be too expensive if we could save thousands of producing workers who, as Mr. Carnegie has so generously acknowledged, are the real sources of wealth?

The protection of the hygienic surroundings of the poor would without doubt not only check the spread of tuberculosis, but many other disease would also become less frequent. Such a measure would protect the rich as well as the poor, for the distribution of the infectious material would in turn be lessened throughout the whole city, and a common expense would be for the common good.

In hemorrhage form the bladder the persulphate of iron in doses of $\frac{1}{4}$ to $\frac{1}{2}$ grain is quickly efficient.

Serum Injection in the Cure of Cancer.

The treatment of cancer and the possibility of a cure will always be held with gladness. The Therapeutic Gazette says: It will be remembered that Wlæff, or St. Petersburg, last summer stated that he had discovered a serum the injection of which would cure cancer. This serum he made from cultures of the blastomycetes or ferment extracts of cancerous tumors, and he employed it in a number of malignant cases inoperable because of the size of the tumor and the extent of the glandular involvement. Of the two cases presented by him in illustration of the potency of his treatment, the first received six injections in the course of a month and showed some improvement. Operation was performed, but the cicatrix ulcerated. This ulceration healed under the influence of renewed injection, though the grandular engorgement did not disappear, requiring removal by the knife.

Another patient suffering from extensive epithelial involvement of the tongue was apparently markedly benefitted by the injections and his pains greatly lessened.

Championniere saw one patient with epithelioma and enormous ganglion engorgement greatly improved by six months' treatment; also a woman suffering from cancer of the breast, who stated that following the injections she experienced greater comfort and more freedom of movement.

With a spirit worthy of emulation Berger and Reynier (Journal des Praticiens, No. 48, 1900) placed a number of patients suffering from inoperable cancer under Wlæff's care, keeping these patients under careful and almost constant surveillance during the course of the treatment. They were not able to note a cure in a single case, though the patients always were greatly improved by the treatment, and they felt benefited by it. The tumor seemed to diminish somewhat in volume. A cancer of the rectum exhibited a lessened tendency toward hemorrhage, and several cancers of the tongue showed less salivation and edema. There was a decided dimunition in the amount of pain. Several patients gained weight, and in others the progress of emaciation seemed to be ameliorated. Indeed, the malignant diseases seemed to become for the time arrested, but this arrest was never followed by a cure, nor was there any reason to hope or suppose that a cure would ultimately result. The action of the injection seemed to be transitory, since when patients who had experienced any relief stopped treatment, the symptoms at once became more pronounced. Championniere points out that many other forms of treatment have been heralded as curative because of a similar arrest in the progress of disease. He notes that the administration of magnesia has, in his own experience, been followed by this result, and believes that he has even seen a cure. Jaboulay holds that large doses of sulphate of quinine will produce this result.

Where the Crime of the Christian Scientist Lies.

This obnoxious subject has created no little annoyance in the past few years. The New York Medical Journal says about it:

The disingenuous methods adopted by the supporters of Christian Science were well displayed in a stormy discussion which, according to press reports, took place at a recent meeting of the Society for Medical Jurisprudence. One of the speakers pleading for "toleration" is reported there to have said: 'Why, the very things they do are done in every Protestant and Catholic church in the country. Go into any of them, and if one of their prominent members happens to be sick, you will hear them praying for his recovery without any regard to whether he has a doctor or not." But when has any objection ever been made to Christian Scientists, or any one else, not only praying for the recovery of the sick, but even bringing to bear the influence of the strongest possible suggestion toward it? The Christian Scientists do *not* pray "without any regard to whether he has a doctor or not," or, as we should prefer to express it, without regard to whether all known meterial or mechanical aids are used or not. There could not be the remotest objection to their supplementing material and mechanical therapeutic efforts with any mental process they choose to employ. Every Christian, of whatever denomination, daily utters, or should utter, the simple petition, "Give us this day our daily bread," and that, or a similar tribute of reliance upon the Omnipotent One, is used by many who do not profess to be Christians; but none of them considers that that fact justifies him in sitting down idly and folding his hands, without making an effort to attain that for which he prays. Would any Christian Scientists exonerate the guardian of a child, should the child die of starvation because its guardian withheld all food, on the ground that matter was nothing and only Divine Mind fulfilled the processes of nutrition and caused the progress of the being in growth and health? Suppose a Christian Scientist's own child were playing in front of a fast-speeding car, and a man standing by did not even stretch out a hand to drag it away, not believing, for-

sooth, in material measures, but relying solely on the strength of Divine Mind. We should like to hear the Christian Scientist's opinion of that inhuman creature. No. It is not what the Christian Scientist does, it is what he refuses to do, that constitutes his crime against religion, society, the community, and the individual.

MISCELLANEOUS.

The Abuse of Drugs.

If one were to answer the question, What is the greatest abuse of the present day? it would be the indiscriminate taking of drugs as proprietary nostrums. The mischief that is constantly being done to the community by taking so much proprietary medicine is enormous. In the first place, the people are induced, by the wiles of the advertiser, to take some preparation, of the composition of which they know nothing. In this way very harmful drugs may be introduced into their systems. In some cases a dangerous craving may be acquired for the narcotics which enter into the composition of some of these nostrums. Persons are often taking drugs when they have no need for them. On the other hand, by the use of these drugs they are often laying the foundation for serious trouble.

In the next place, many persons take it upon themselves, by the aid of advertisements, to diagnose their own cases and prescribe for themselves according to the fancy that may strike them, as the result of the study of these advertisements. Wrong drugs are thus usually taken, and valuable time lost to the patient.

Another feature of the sale of medicines, as placed before the public by the nostrum vender, is the claim of curative powers that do not exist in any drugs, or combination of drugs. All forms of heart disease are cured, no matter whether functional or organic. The kidneys in like manner are made to yield to the potency of some so-called cure; the granular contracted kidney once again assumes its normal shape, size, and texture; the rigid arteries become soft and flexible; and the health is again restored to its former vigor. All the experience of the medical world is given the lie. The crumpled, broken down heart valves, and the small, hardened kidneys, are again compelled to do duty of perfect quality.

In all this we have the most monstrous fraud and deception. In some cases it is ignorance, so far as the vender is concerned, but in the majority of instances there is wilful deception for the love of gain. It is fraud of the most diabolical sort, and should not be tolerated for a single day. No man should be allowed to advertise a quality for his goods which they do not possess. It is a variety of confidence game, or practice, that invariably humbugs the buyer and fraudulently enriches the maker.

The law is not strict on the sale of poisons, and certain noxious drugs; and yet, under the name of some proprietary article, bromides, chloral, opium, cocaine, alcohol, ergot, etc., can be obtained in quantity.

A female regulator is put upon the market; an analysis shows it to contain ergot, savin, aloes, iron, hellebore, cotton-root, etc. Here you have an ideal abortifacient as far as drugs are capable of accomplishing such work. Yet, if a physician gave a prescription for such a purpose, or introduced a sound, he would stand in the eyes of the law as a heinous criminal. But the proprietary medicine man can put such a compound upon the market, and in the advertisements suggest to the public what it is for, and nothing is done to him.

Here, then, is a crying evil. What is the remedy? One would be to prohibit the sale and advertising of proprietary medicines, but especially if they contain any of the drugs in the poison or noxious list. It may be some time before our legislators can be educated up to this standard. There then remains a partial remedy that should at once be put in force—the exact composition of every proprietary medicine should be printed in plain language on the wrappers. In this way the people should see for themselves that some greatly vaunted medicine was only ditch water. Further, these nostrums would be ordered off the market if they contained noxious or poisonous drugs.—*Canadian Practitioner.*

Safest Method of Removing the Appendix.

A. A. Warden, M.D., (Lancet) says: There are three methods of removing the appendix: (1) The continental; (2) the English; and (3) Doyen's, which is best, because it is the simplest and safest.

1. The continental method—that commonly followed by Terrier, Martman, and most Paris surgeons—is simply to ligature the appendix near its base, resect it with the thermocautery, cauterise the stump, and then let it fall back into the abdomen. This method is faulty, because it leaves loose and open in the abdomen the cauterised lumen which, even if effectively cleansed, is almost certain to adhere to neighboring parts. If effectively cleansed, a peritoneal abscess and generalised peritonitis may result.

2. The English method is to dissect back a collarette of peritoneum which is finally stitched over the ligatured stump of the appendix. This method is an improvement on the former, but is also faulty in being more difficult, and in exposing the field of operation to a leakage of the bowel contents in the event of a accidental puncture or opening of the appendix. In the case of an inflamed and diseased appendix this accident difficult to avoid if attempts are made to to strip off the serous covering.

3. Doyen's method is the best. It is simple and rapid; the appendix is not opened, so infection of the peritoneum by escape of bowel contents is not possible, and in the event of infection and suppuration, the pus must discharge into the lumen of the bowel. The little mesentery of the appendix is first ligatured with a small silk ligature to free the appendix laterally. Then (1) the base of the appendix is gently crushed with Doyen's small clamp. Almost any forceps suffices for this purpose if strong enough and broad enough to completely occlude the appendix for a breadth of, say, a 1-4 in.; (2) a fine silk ligature is thrown round the base of the appendix in the furrow left by the clamp; (3) the appendix is removed by the thermo-cautery close to the ligature; (4) a purse suture is made in the serous covering of the sæcum close round the base of the appendix (as this purse stitch is drawn tight, the little stump is invaginated so that all is completely closed); and (5) for safety a second fine silk purse stitch is made and the little pucker of the first stitch is similarly invaginated and the ligature is gently tightened. The result technically is perfect, and this is the most aseptic method of removing the appendix. —*Indian Medical Record.*

What the Wrong Medicine Cost.

The extraordinary tale of carelessness and cynical flippancy was last week unfolded in the Glasgow Court of Session. It appears that a Mr. Robertson took two prescriptons, one for medicine and the other for ointment, to Messrs. Cockburn, a firm of chemists, to be made up. A little later he sent his assistant for the medicine. The lad brought back a single bottle in a wrapper and was sent back for the ointment. Mr. Robertson then tore the paper off the top of the bottle and drank a dose of the contents. He felt an intense burning in the throat, and at once went to the chemists and asked if the bottle sent him contained the physic for which he had left the prescription. The manager looked at the bottle, and asking if his throat was bad, took him into a back room, where he gave him some liquid to ease his throat. He went home and was so ill that he fell down in the entrance hall, and was afterwards medically treated. The evidence for the defenders was the messenger asked for "Mr. Robeson's" medicine, and was given a bottle addressed to "Mrs. Robinson." The bottle was of blue glass, and had a red poison label, on which the name of Mrs. Robinson was written. When the messenger returned and asked for the ointment he was told by the chemist's assistant that there was none. As soon as Mr. Robertson came to the shop the manager looked up the prescription book, and saw that a deadly poison had been sent. Then followed the most extraordinary part of the whole affair. The manager did not tell his customer what had happened, nor did he call in medical advice. His excuse was that he could not believe Mr. Robertson had taken any of the poison, because if he had he would have been already dead. Fortunately, the pursuer had taken the stuff after a meal, and received medical assistance within the next hour. Otherwise the chemists would possibly have had to answer a charge that would have proved more embarrassing in its consequences than the loss of the £700 in which they were mulcted. The original error of the dispenser, who appears to have been uncertified, was aggravated by his subsequent carelessness, and by the cynical neglect of the manager to administer antidotes and summon medical assistance.— *Medical Press and Circular.*

Practical Home Methods of Bathing in Typhoid Fever.

Dr. S. Baruch recently discussed this phase of this subject. He said that the first impression of cold upon the skin was the so-called shock; it was really a physiological irritant. The impression lasted a longer or shorter time, depending upon the method of procedure and its duration. The friction stimulated the contracted arterioles to dilate again, and performed the important normal function of propelling the blood, thus keeping up a proper peripheral circulation. The latter was usually so crippled in typhoid fever that the heart was compelled to beat faster and more forcibly. By the proper use of cold water the pulse diminished in frequency and gained in force. The skin assumed a rosy hue because its arterioles had been dilated in a tonic fashion. The countenance lostits apathy, the respirations were deepened, and the kidneys were aroused to renewed activity. Friction should always accompany the cold-

water treatment—a fact which even at this late day needed reiteration and emphasis. As an illustration of how the cold-water treatment should not be applied in typhoid fever the speaker mentioned the abdominal ice coil, still so popular with many physicians. This was a direct violation of the fundamental principle of all hydrotherapy, that cold applications must be accompanied by frictions. In home practice the ablution was the simplest procedure. The patient was stripped, a blanket was placed underneath him, and first the back and then the anterior surface of the body treated to the ablution. It should be given with considerable friction, the temperature of the water being reduced from time to time until the temperature reached 60 deg. F. The abdominal compress was another useful method of applying cold water. This consisted of three folds of toweling wrung out of water at a temperature of 70 deg. and applied snugly, being covered with thin flannel. It should be renewed hourly. When the temperature persisted in remaining at 103 deg. or above, the towel bath was appropriate. A towel was dipped into water at 85 deg. F. and laid dripping and smooth over the entire back. Water at 70 deg. was dipped up with a cup and poured on the upper left part of the back, and then this part was rubbed with the hand. This was done three times, and then the other parts of the back were successively treated in the same way. The water on the sheet was mopped up with a sponge, and then the anterior parts were similarly treated, care being taken not to use pressure over the iliac region. The temperature might be reduced five degrees each time until the temperature of the water for the towel reached 60 degrees and that in the cup reached 50 deg. The "sheet bath" was still more potent, and was very useful when objection was made to the full bath, or the latter was impracticable. An old linen sheet or tablecloth should be dipped in water at 90 deg. and wrung out very lightly. The patient having been wrapped in this, water at a temperature of about ten degrees lower should be poured successively upon different parts of the body, and each part rubbed with the hands until it no longer warmed up. The typhoid fever patient should be given internally from four to six ounces of water at 40 deg. every two hours, and this should be alternated with the same quantity of milk.—*Medical Record.*

Treatment of Piles by Position.

G. Oeder (*Zeitsch. fur diat. u. physik. Therap.*, No. 8, 1901) considers that, just as one raises an inflamed limb in surgical practice to diminish the intravenous pressure, the pressure in the hæmorrhoidal veins can be easily lessened by raising the buttocks, until the anus (and thus the plexus) occupy a higher position than the inferior vena cava and heart. He noticed such marked relief of distressing symptoms in himself by adopting this principle that he has devised a method of procedure which gives him very satisfactory results in his practice. He places two wedge-shaped pillows or bolsters with their basses towards the foot end, about 20 inches from the head end of the bed. The two wedges lie on top of one another, producing an elevation of some 16 to 18 inches. The patient lies with his buttocks at the highest point of the wedges, on his back, but he finds that the body weight reduces the elevation by some 10 inches. The head must be placed against the head end of the bedstead. He asserted from practical experience that the position is a comfortable one. It may, however, be varied by a half abdominal and half right-sided position in which he suggests that the left leg be flexed and the knee brought up on to the wedges. In ordinary cases he finds that it is sufficient to employ this position merely at night-time, and states that these cases react well if repeated for two or three nights. In severe cases it is necessary to keep the patient in bed in this position for some days. At the same time local applications can be resorted to, and he emphasizes that he does not claim that this treatment will do away with surgical procedure. He asserts, however, that the patient can usually be kept quite free from distressing symptoms by this means, and so saved the necessity of being operated on.—*British Medical Journal.*

A Plea for a More Rational Prognosis in Cardiac Affections.

J. J. Morrissey, A. M., M. D., Visiting Physician, St. Joseph's Hospital; Chief of Clinic Out-door Department, St. Vincent's, New York City, says:

1. When a heart murmur is discovered, do not give a gloomy prognosis on that simple fact alone; consider the condition of the cardiac walls, the probable length of time the lesion has existed, the presence of dilatation or hypertrophy, or both combined. The occupation and temperament of the patient are very essential factors in the prognosis. Each individual is a law unto, himself, and though certain general principles may be established as a basis on which to build a working prognosis, remember we have no real means of recognizing the strength of the individual heart,

except its power of resistance against the poisonous effects of alcohol and tobacco, or the inroads of the acute or chronic diseases, or the stress of laborious occupations, or the debilitating influence of prolonged exposure. The diagnosis should be complete, the prognosis tentative. Or, as a distinguished English colleague has said: "Give your prognosis on the best suppositions, treat your patient on the worst." (Allbutt).

2. Remember that murmurs do not invariably mean endocarditis, and a prognosis based simply on the presence of a murmur would be rank injustice to the patient, and demonstrate incapacity on the part of the physician. As a skilled observer has well stated: "With an apex-beat in the normal situation, and regular in rhythm, the auscultatory phenomena may be practically disregarded."

3. To those of us who are interested in life-insurance work, this is of great importance. We wish to be just to the applicant, and at the same time do our duty toward the company. The fact that a man has a murmur at the apex, of which he is entirely unconscious, whose heart is doing its work thoroughly, despite the existence of the lesion, whose occupation is not of an adversely laborious character, who has passed that period of life when acute rheumatic infection is liable to stimulate into fresh and renewed activity the latent inflammatory products of an ancient endocarditis, should be factors to guide our judgment as to the probabilities of the future prompt us in recommending for him a policy commensurate with the degree of cardiac inefficiency.

It should not be forgotten in this connection that a presystolic murmur does not always indicate the most serious of all lesions, viz., a mitral stenosis, nor has a so-called musical apex-murmur any particular significance in prognosis, indicating, as it does, the passage of a stream of blood through a small aperture in the segment of a valve.

4. From the standpoint of longevity, aortic stenosis is a favorable lesion, and the writer must differ from some authors who state that it appears for the most part after middle life. It is found at that period when a man should be at the highest point of physical capability, between 30 and 50. It is true that it is frequently present as part of a general decay, and then develops in consequence of atheromatous changes taking place throughout the system; but it is more frequently present than has hitherto been suspected without such pathological manifestations being present.—*Indian Medical Record.*

The Action of Morphine on the Stomach.

A. Hirsch (Contralbl. f. inn. Med., January 12th, 1901) draws the following conclusions from experiments on dogs in which a cannula had been permanently fixed in the duodenum; (1) In doses of 0.01 gram (about $\frac{1}{6}$ gr.) or more per kilo. of body weight, morphine when injected hypodermically causes the gastric contents to be retained for hours; (2) this inhibition of expulsion is due to persistent spasm of the pylorus; (3) as long as the pyloric spasm lasts there are powerful peristaltic movements of the pyloric portion if the stomach is full, or weaker movements if the stomach is empty; in either case the cardiac end of the stomach remains at rest; (4) the secretion of HCl is at first diminished, but later is abnormally large; (5) the pyloric spasm and the peristalsis of the pars pylorica are due to a stimulation of the centres for the contraction of the pyloric sphincter and pars pylorica situated in the carpora quadrigemina; (6) the initial inhibition of secretion of HCl is probably produced locally by the excretion of morphine through the gastric glands; the later hypersecretion is probably of central origin. The clinical observations of Riegel and others show that the effects of ordinary doses of morphine in man are: (1) Delayed expulsion of the gastric contents; (2) initial diminution and later increase of the secretion of HCl, both of which are proportional to the dose; (3) a dose given hypodermically produces much more marked disturbances than an equal dose given by the mouth. Since these observations agree in the main with the results of the writer's experiments, it is probable that morphine produces in man, as in animals, a more or less lasting pyloric spasm. —*Rritish Medical Journal.*

J. L. Ridley, M.D., Huntsville, Ala., says: I have used S. H. Kennedy's Extract of Pinus Canadensis, both White and Dark. I can frequently cure gonorrhea without any other remedy. I use either as an injection, and prescribe the Dark internally, where there is irritability about the mouth of the bladder. I have learned to regard it as a specific. In chronic cystitis I have derived great benefit from it, and in leucorrhea it relieves when many other remedies fail. It is a valuable remedy, and I have had marked success with it.

Cancer of the uterus occurring before 40 years of age is more rapid in process, all other things being equal, than when found in women of more mature years.

Coughs; Their Suppression and Cure.

The treatment of coughs in general has always been varied and unsatisfactory. In the science of medicine there has ever been the difficulty to find a good remedy to relieve pain and distress in many phases of chest troubles, and particularly in coughs of bronchitis, pneumonia and phthisis.

With all of the numerous remedies of the materia medica, though each has had some particular value, there has always been the disadvantage of some unpleasant therapeutic effect following their use.

Stomach disturbances, constipation, stagnation of the secretions, increased temperature, diminished expectoration, excessive narcotic effect, the danger of habituation, etc., etc., are some of the complications experienced, and more especially are these conditions to be expected after the administration of codeine or morphine.

Furthermore, even admitting the value of codeine or morphine (with their undesirable after-effects) in certain cases, how often do they utterly fail to mitigate the coughs of phthisis, bronchitis and whooping-cough, and also prove their absolute uselessness in laryngitis, asthma, etc.?

How especially important is it to have an efficient remedy for the cough of phthisis pulmonalis, which would not cause the disagreeable stagnation of secretory products of the lungs, that would not weaken the respiratory apparatus nor have any deleterious effect on the heart.

Surely the profession has long felt the need of something to replace the various opiates for the suppression and cure of coughs, something that should be superior, more reliable and safer. A remedy that would not only be efficient, but safe for the treatment of the sympathetic cough of pregnancy. A remedy that can be used where heart complications occur. A remedy that will promptly check incessant, hacking cough, and paroxysmal coughs, which rob the patients of rest and sleep.

Doubtless a remedy proving unusually meritorious in treating these various forms of coughs, and one which would be free from the unpleasant characteristics of morphine and codeine, will be of much interest to my colleagues and of much importance to the profession of medicine. With this fact in view I have concluded to submit the notes of a few cases to show the exceptional good results obtained with a product recently introduced to the physician for his consideration.

I, like most physicians, look with the greatest skepticism on the ever-appearing articles on new remedies, and would not now have the opportunity to express my present satisfaction, if I had not been repeatedly urged by some of my confreres to try this new preparation in a few cases that were then giving me the greatest trouble.

The complete clinical reports of Prof. Morris Manges, of the Mt. Sinai Hospital of New York, Dr. W. Freudenthal of New York, Dr. B. Turnaur (Weiner Medizinische Presse, No. 12, 1899), Dr. A. E. Beketoff (Klinische Therapeutische Wochenschrift, No. 14, 1899), following their investigation with heroin, I find to coincide with the results I have experienced with glyco-heroin (Smith), but I would here impress upon those interested that my entire investigations were made with glyco-heroin (Smith) only, excepting the few instances where I tried tablet triturates, and found them decidedly unsatisfactory.

Without doubt the merit of this preparation is to be attributed to its excellent composition, viz.: heroin, one-sixteenth grain; ammon. hypophosphite, three grains; hyoscyamus, one grain; white pine bark, three and one-half grains; balsam tolu, one-quarter grain, and glycerine sufficient to make one dram, wherein the therapeutic properties, if the drugs are properly compounded, and which is evidenced in this preparation, will be acknowledged desirable by every physician. Here I would point out the special advantage that this preparation possesses over heroin in any other form, viz.: the unnecessary administration of other remedies, while your patient is being treated with glyco-heroin (Smith), wherein you not only get the palliative effect of heroin, but have an admirable combination of remedies to bring about absolute cure in most cases. On account of the absence of syrup, instead of which glycerine, with its solvent and medicinal qualities, is used, there is not experienced the usual derangement of the stomach following the administration of preparations containing sugar or syrup.

The addition of ammonia hypophosphite also appealed to me, for its superiority as an expectorant over other like remedies is an established fact and must add much to its therapeutic value.

From the white pine bark contained therein, the astringency of which is, no doubt, modified through the soothing effect of glycerine, I found a very beneficial effect on the mucous membrane, thereby proving this also a valuable and desirable addition.

If, with our knowledge of the superiority of heroin as a sedative, we closely scrutinize the formula of this preparation, we should not fail to observe the efficiency of this

*Dr. Louis DeLorne in the Interstate Medical Journal

combination, the therapeutic value of which has been proved by careful physiological experiments in the laboratory with accurate observation on its therapeutic action before being introduced to the medical profession, whose demands upon a new remedy, before permitting its admission to a permanent place in the materia medica, are at the present time much more exacting than in the days of empirical pharmacy.

Believing that the individual results observed in a vast number of cases following the clinical investigation of a remedy to be superfluous, I shall here give the records in only a few of the cases in which I have tested glyco-heroin (Smith), and which are as follows:

1.—George N.; a case of pulmonary tuberculosis. The patient, who had been unable to sleep except in a sitting position, suffered from a violent cough, with a great deal of expectoration and dyspnœa. Respiration, 32; temperature in the afternoon, 103 deg.; pulse, 120. The paroxysms of coughing were very violent, one following another in rapid succession. He had been given codeine and morphine, but the cough and other symptoms persisted. Finally he was given a teaspoonful of glyco-heroin (Smith) (containing one-sixteenth grain of heroin) every three hours. That night he was able to lie down and sleep, only coughing twice during the night. After taking a teaspoonful every three or four hours for one week, his respirations were reduced to 26, temperature 101½ in afternoon, pulse 98. He said he had not coughed more than a dozen times during the entire week, his night-sweats had been very much diminished, appetite improved.

2.—Mrs. S; has been confined to her bed with a severe case of la grippe for two weeks. On recovery she suffered with a persisting and harassing cough. Various narcotics and expectorants were administered but afforded no relief. One tablespoonful of glyco-herion (Smith) was given every two hours She obtained relief after taking the first dose. The next day she took one tablespoonful three times a day. At the end of the fourth day the cough had left her. The only unpleasant effect was she complained of being drowsy the first day.

3.—Joseph S., sixty years old. Had suffered since 1895 from chronic bronchitis. Had a violent cough, could not sleep nights. There was no emphysema in this case. He was placed on the following treatment: Potassium iodide, five grains three times daily, and glyco-herion (Smith), one tablespoonful every three hours, the first week. After that the glyco-heroin (Smith) only was given three times a day. This case ended in complete recovery.

4.—A case of whooping-cough in a child eight years old, who had sixty or seventy paroxysms daily. Glyco-heroin (Smith) in twenty-mimim doses every four hours soon reduced the paroxysms to between twenty and thirty a day, and the violence of the paroxysms was very much abated.

5.—The three children of Mrs. C., had whooping cough; the baby, one year old, suffered very much; the paroxysms were very violent. In this case the results were very good and almost instantaneous; after the second dose of glyco-heroin (Smith) the violence and frequency of the paroxysms abated: the child made a quick recovery. The other two children had very mild attacks, which I believe was also due to the heroin (Smith) administered.

6.—E. D-, sixty-three years old, had suffered for the past four years with chronic bronchitis: while being free from cough all summer, it seemed to increase in severity each winter, and he dreaded the return of the cold weather. I was called in September 28th and found him suffering with a voilent cough and a great deal of dyspnœa. With the aid of glyco-heroin (Smith) I have stopped the cough; he has not taken any of the glyco-heroin since October 23d, and there has been no return of the cough. His present condition shows a complete cure.

In all tuberculous cases the cough diminished until practically absent, patients slept better, appetite increased, gained in weight and the temperature reduced to about normal.

In several cases of whooping-cough where other remedies had been tried in order to relieve the paroxysms of coughing without result, with the use of glyco-heroin (Smith) the results were all that could be expected, as there was decided relief from the paroxysms of coughing, and all were able to sleep and rest well.

In acute bronchitis glyco-heroin (Smith) acted very promptly, and not alone was the cough relieved in a very short time, but also the whole general condition of the patient was rapidly improved.

In chronic bronchitis the preparation is very serviceable. The expectoration is facilitated and the dyspnœa diminished, owing to the fact that the air enters more completely into the alveoli in consequence of the increased inspiratory force.

In bronchitis the results were also satisfactory. If the precaution of lowering the upper part of the body was observed to aid the patient to get rid of much or the accumulative secretions by gravity, a few

small doses of glyco-heroin (Smith) during the day and a full dose at bedtime would always make the patient very comfortable.

In pulmonary emphysema and bronchial asthma glyco-heroin (Smith) is decidedly superior to any other remedy therefor used.

During the attack of asthma, with the administration of this remedy respiration is stimulated, and the individual paroxysms were not only shortened, but the interval between the attacks is distinctly lengthened.

In acute pneumonia the results were very gratifying, since in most of the cases the harassing cough was speedily controlled and the patient's comfort was increased as well by the stimulation of the respiration, the dyspnœa becoming much less marked.

And now, summing up all data of the clinical investigations carried on under my observation, I must say that we have here acquired a reliable. prompt and effective remedy with the following advantages:

A reduction of temperature.

Prolonging respiration and at the same time increasing the volume of each inspiration.

Almost devoid of hypnotic effect.

Absence of danger of acquiring the habit.

It does not weaken the respiratory apparatus.

Does not cause unpleasant disturbance of the stomach or intestines.

Is without deleterious effect on the heart.

The ratio of therapeutic to the toxic dose is many times smaller than that of morphine or codeine.

Its decided beneficial effsct in all dyspnœa.

It does not constipate, or rarely, and then only slightly.

Acts as a stimulant to the respiratory center, and stagnation of the secretions is excluded.

And in comparative doses with codeine, the latter is shown to produce nausea and vertigo, while these symptoms are absent during the administration of glyco-heroin (Smith).

In conclusion, I would say that all cases here cited, and many others as well, the instant relief obtained marveled both myself and patients. I have never, with any remedy for similar indications, enjoyed the confidence I have in this preparation, and now have the pleasure in not only having offered relief and cure in the cases wherein this remedy was first suggested, but find glyco-heroin (Smith) almost indispensable; and more especially so when I again consider codeine or morphine, with all their bad effects, as remedies compared with this preparation, which, on investigation I found to be not only a true pharmaceutical product, but also an ethical product in every sense that the physician applies this term in designating a medicinal preparation worthy of consideration by the medical profession, and for this reason I have no hesitancy in giving my experience with the same, but rather feel that any treatment of disease that prove of special merit should always be brought to the notice of the profession.

The preparation is well worth investigating, and will surely prove a valuable addition to the "armamentarium" of every physician.

Some Statements Concerning Calomel.

The new Italian journal, the Practica del medico, says: That the fact that certain erroneous notions about calomel, especially its incompatibility with other drugs and the danger of its transformation into corrosive sublimate, are widely entertaimed, has led it to make the following statements: (1) Calomel cannot be changed into corrosive sublimate in the short time for which it remains in the alimentary canal; it is a very stable salt, and only small quantities are transformed into soluble albuminates, (2) Purgative doses are quickly eliminated with the fæces, while small fractional doses remain in the intestine for a long time, and, being changed into soluble salts, may be absorbed; this is the reason why calomel in small and repeated doses is more dangerous than in a single large dose. (3) Substances which contain sodium chloride are not incompatible with calomel; those containing hydrocyanic acid (such as cherry-laurel water and emulsion of bitter almonds) are incompatible with it, because they lead to the formation of mercury cyanide, which is very soluble and rapidly absorbed. (4) It is dangerous to administer calomel which has been for a long time mixed with powdered sugar. (5) Calomel should be kept in opaque and well-stopped bottles, for under the influence of light and air it partially decomposes. (6) Calomel should be in the form of an amorphous powder, fine to the touch, and of uniform whiteness.—*Indian Medical Record.*

The Medical Times says: The biggest living man is Lewis Wilkins, who is now arousing great interest in the scientific circles of Europe. Wilkins was born on a farm near St. Paul, Minn., in 1874. When but ten years old he measured six feet in height and now has grown to the tremendous height of 107¼ inches—just three-quarters of an inch less than nine feet—and weighs 364 pounds.

Dysmenorrhea.

Geo. Tucker Harrison, M.A., M.D., Obstetrician to the N. Y. Infant Asylum; Fellow of the N. Y. State Association of New York City, in an article presented to the Section on Obstetrics and Diseases of Women at the Fifty-first Annual Meeting of the American Medical Association, published in the Journal of the American Medical Association, Vol. XXXVI, No. 6, page 369, describing his experience with various drugs in the treatment of dysmenorrhea, says:

"I need scarce remind you that a frequent recourse to the use of opium is manifestly contraindicated. Antipyrine has shown, in my hands, wonderful power in relieving the pain of dysmenorrhea. It should be borne in mind, however, that it is very depressing in its action on the heart, and its effects must be carefully watched. Of all the coal-tar derivatives Phenalgin in 5 gr. doses, once every hour or two until the pains cease, has rendered me the greatest satisfaction.

Japanese Baths.

The Japanese take only hot baths (110 deg. F.), and bathing they regard as one of the delights of life. In the city of Tokio there are one thousand baths, at which nearly half a million people bathe daily. Nearly all private houses, even in villages, have their own bath-rooms. People who do not have bath-rooms take their tubs to the door. In Japan people are pure without being prudish.—*Health.*

It has been decided to establish a sanatorium for consumptives at Winsley, near Bath, to serve the countries of Somerset, Gloucester and Wilts. The building will be situated on a high hill, overlooking the Avon. It will face south, and possess grounds of 53 acres. The sanatorium is intended for the class intermediate between that which can pay three guineas a week and upwards, and the rate-aided poor. The scheme should prove so useful that we hope that it will be found possible to carry it to a financial success. Undoubtedly such institutions are much need.

Dr. Kraft, editor of The American Homeopathist, 57 Bell Avenue, Cleveland, Ohio, is collecting a small but select company of ladies and gentlemen for a fifty days' summer tour of parts of Ireland, England, France, Switzerland, Italy, Austria, Germany and Belgium. Terms reasonable. Apply early.

George Russell, of Taylorsville, Ky., is the father of a midget doughter that weighs less than two pounds. The remarkable thing about the child is that it was born with a full set of teeth. The child is well formed and gives no evidence of unusual weakness.

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A colored woman threw the odds and ends of medicine left after her husband's death into the fire. The explosion that followed carried the stove through one of the windows. "Mos' pow'ful movin' medsin I eveh saw'd," said she. "No wondah the ole man gone died."

The official report of the financial department of the Paris Exposition shows a loss of only $400,000. The expenditures amounted to $23,300,000, and the receipts amounted to $22,900,000.

In Winona, Minn., there have been nine hundred cases of smallpox, and some of the surrounding cities have established a quarantine against the infected city.

Do not use antiseptic or astringent douches while the patient is wearing a pessary; the salts from the solution are deposited upon the appliance and roughen its surface, thus causing irritation.

An entire family of nine persons died July 9, near Calico Rock, Marion county, Arkansas, from eating toadstools, mistaking them for mushrooms.

In injuries to the eyes from lime, Stutzer states that water poured from a small spout of a coffee-pot is the best for the purpose of rapid relief.

Be certain that your patients know that they are to lie down when taking a vaginal douch, or you may find that it has been taken in the "squatting" posture.

The Motor Functions of the Intestine.

Sabbatani and Fasola (Arch. Ital. de Biol., December 31st, 1900) in investigating the possibility of antiperistalsis, rejected the method of direct observation of the response of the intestine to artificial stimuli as offering conditions too artificial to give valuable results. They relied upon the following experiments, in which all operations were performed aseptically: (1) A portion of small intestine was isolated and then reversed, its lower end being sutured to the upper stump, and *vice versa*. Great care was taken to avoid danger of occlusion of the gust or strangulation of the vessels. Twenty-four operations were performed. (*a*) In those cases in which the whole of the jejunum and ileum, or all except the last 15 centimetres of the ileum was reversed, death occurred within forty-eight hours of the operation from rupture of the superior suture and peritonitis; (*b*) animals who had a limited portion of intestine (15 to 100 centimetres) reversed, throve for a time, but ultimately wasted. *Post mortem*, either perforation through the upper suture was found, or a great dilatation at this point caused by a collection of the indigestible part of the food. (2) After suturing so that the food from the duodenum might take two ways, one in a normal anatomical direction, the other reversed, the animals throve; when killed the reversed portion was found shrunken and empty. (3) After division of the intestine, sutures were so applied as to leave a cul-de-sac, with an ascending or descending function according as it consisted of the upper or lower portion of the divided intestine. If the diverticulum belonged to the upper portion, it was found full and dilated at the necropsy; if to the lower, empty and small. (4) Fistulas were made after section of the gut, by the suture of one cut end to the skin, continuity of the canal being obtained by lateral suture of the other end. If the upper part of the intestine formed the fistula there was much loss of nutritive material, rapid wasting, and death. If the lower there was little or no discharge and indefinite survival. Experiments were also made on isolated portions of small gut with both ends stitched to the skin, restoration of the canal having been effected. Small woolen balls attached to threads were found to travel in the direction of normal peristalsis only. From the various experiments it is concluded: (1) That physiological direction of intestinal movement is stable, and that adaptation does not occur; (2) that neither in physiolgical or pathological conditions do antiperistaltic movements take place; (3) that for the passage of solids peristalsis is indispensable. Regurgitation of liquids may occur without active peristalsis.—*British Medical Journal.*

Brief Points in Diseases of Children.

Contracted pupils are the rule during sleep in childhood; they are noted during waking hours in beginning meningitis and in opium narcosis. Widely dilated pupils which fail to respond readily to the light are seen in cerebral affections. The unequal pupils are also indicative of brain affection.

When the hair is thinned or worn off the back of the head one has good cause to investigate carefully for rickets.

In swabbing the throat of a rebellious child, touch the roof of the mouth with the brush and pass it rapidly back to the vault of the pharynx without removing the pressure; retching results instantly, when one sweep of the brush covers the entire field. This maneuvre may be repeated again and again, and never fail if properly executed.

Tincture of iodine often frightens young children if they notice the brown discoloration of the skin. Keep the area out of their sight till clothing is replaced.

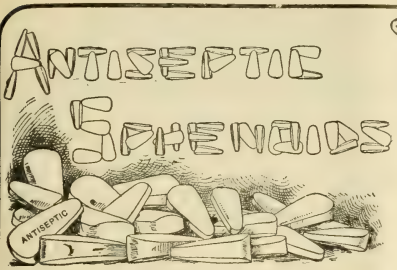
Never ask a child to let you see its tongue; touch its chin gently with the tip of the forefinger and gradually increase the pressure, and most children will unconsciously open the mouth.

Color your liquid medicines with carmine or chlorophyll; color has quite an influence with a child who has been dosed with black or clear mixtures.

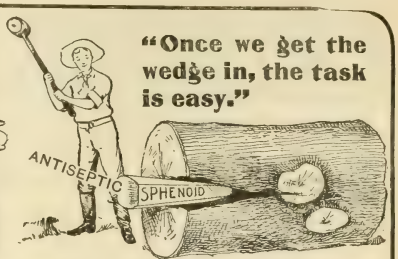
Calomel tablets are not injured by being made up with a little sugar and enough carmine to color them pink; children will eat them greedily without protest or struggle.

Keep vinegar boiling in a tin cup over a lamp in the room where you have your next case of bronchitis, whooping cough, tonsilitis, diphtheria, or measles. Half an ounce of turpentine to 8 ounces of water is another excellent antiseptic, expectorant, air moistener. Lay two nails across the top of the chimney; light your lamp; place your tin cup on the nails and you have a very good substitute for a high-priced vaporizer.

Do not fail to try the cotton jacket in bronchitis and pneumonia. Have the mother quilt cotton batting inside a loose undershirt and the jacket is made. In removing it after convalescence, pluck it off a little at a time till all is removed, and there will be no danger of taking cold, as will happen if it be removed entire.



For Vaginal and Rectal Troubles.



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An Important Factor in the Production of Naso-Pharyngitis and Adenoids.

Long since it appeared to me that the ordinary factors active in the causation of chronic nasal catarrh cannot be the only cause for these persistent and troublesome cases of naso-pharyngitis and adenoid growths so frequently met with in practice. That these pathological conditions are always preceded by rhinitis is certain, although the swelling of the mucous membrane covering the turbinated bodies may be so slight and transient as to escape notice. But in a great many cases it is just sufficient to produce enough obstruction to prevent the air entering the anterior nares from filling the posterior nasal space quick enough to keep up an equal pressure throughout the nasal cavity. The slight negative pressure in the trachea during inspiration removes the air quicker from the naso-pharyngeal space than the swollen turbinals allow the space to be refilled, the consequence being a diminution of the positive pressure in the space and a loss of support to the blood-vessels. Atonicity, hyperæmia and thickening of the mucous lining not only of the naso-pharyngeal space but also around and in the nasal end of the Eustachian tube is the result, and in many instances the whole process is so trivial and insidious that neither nasal nor pharyngeal catarrh has been noticed—and if noticed it has been neglected—but failure of hearing, headache and fullness about the frontal sinus are the complaints about which we are consulted. A good many patients inform us that they hear all right or relatively good as long as they are on their feet, but as soon as they lay down they get deaf on the side they are laying, the little mucus collecting on that side during the time they are occupying the recumbent posture being sufficient to make the partial occlusion of the Eustachian tube complete.

It is evident that all the cavities behind the obstruction (ethmoidal cells and frontal sinus) must suffer in a similar manner, and thus is explained the constant headache and sences of fullness in this region. That this condition is frequently the precursor of adenoids cannot be doubted, and I believe that their formation can be prevented in a good many cases if seen early enough.

I am fully aware that I have said nothing new, but the fact that in many instances Politzerization is practiced until the nasal end of the Eustachian tube becomes entirely occluded from the irritation incidental to the introduction of the catheter makes me believe that not enough attention is paid to the nasal obstruction, and the vis medicatrix naturæ is prevented from coming into play by this meddlesome interference. The

therapeutic measures I am going to suggest may appear simple, but they have served the purpose so well in my hands that I can not refrain from drawing the attention of your readers to them.

In cases where an irritable condition of the Schneiderian membrane and a serous secretion are the only pathological conditions present I direct the patient to use the following snuff three times daily:

℞ Menthol grs. x
Cocain hydrochlor grs. iii
Bismuth subnitr, 3iii
M.

If he be compelled to stay for any length of time in a dusty atmosphere I advise the insertion of a small piece of vaseline into the nostrils. It protects the membrane by a fine oily coat.

If the mucous membrane is already thickened and the secretion is tenacious I have the nose washed out twice daily with an alkaline wash, the most serviceable lotion being prepared by mixing equal parts of Biborate, Bicarbon and Chloride of Sodium and adding one-half teaspoonful of this mixture to a cupful of warm water (105 deg. F.). No douche or other elaborate apparatus is used for syringing, a common 2-ounce glass syringe having the two advantages that the pressure can be regulated at will and that no irritation is produced by the nozzle. After the secretion is removed a piece of absorbent cotton is saturated with Sander's Eucalyptol inserted in one nostril and left there during the night. The next morning, after previous washing, a fresh tampon is inserted in the other nostril. This tamponade diminishes the secretion, exercises an antiseptic effect and protects the membrane from outside irritation. As the catarrhal condition improves the Eucalyptol is diluted with an equal quantity of Albolene or liquid vaseline. The dilution may be even greater if a dry condition of the nose should demand it.

A considerable thickening of the turbinated bodies requires removal of the obstruction, and this is best done by the galvano-cautery after previous cocainization. A 10% solution of chromic acid may also be used when the galvano-cautery is not available. Any other obstruction (polypi, deflections of system, &c.) should also be removed by approximate means to fulfill the main indication of treatment—re-establishment of free nasal respiration. After these operations the Eucalyptol-tampon is very serviceable; it causes the raw surfaces to heal up quickly and prevents any infection by outside germs.

Not until these measures have received thorough attention should a direct application to the naso-pharynx be made nor the Eustachian catheter be used. After nasal respiration is re-established the mucous lining of the posterior nares regains its tone in a good many cases and no further treatment is necessary. Even if the pharynx should demand separate attention later on, it is useless to waste any time with its treatment as long as the nose is not entirely free from obstruction.

A. Sandner,
M.R.C.S., (Eng.) L.R.C.P., (Lond.).

An Unattached Specialty.

The ancient Egyptians (New York Medical Journal) were evidedtly a point or two ahead of us in other things besides pyrimid-building. What says Herodotus (Euterpe, lxxxiv)? "The healing art is thus practised among them. Each physician confines himself to one disease, not more. There is an abundance of physicians. Some devote themselves to the eyes, some to the head, some to the teath; others again to the bowels, and still others to more obscure disorders." It is true that in the present day we are once more approaching their level, but even now our specialization is far from complete. The Lancet for February 9th quotes the following amusing verses by "J. B." from the St. George's Hospital Gazette, detailing the woes of a titled invalid in search of an appropriate specialist:

A tumor he developed on
A spat that's quite neglected;
No specialist for just that point
He anywhere detected.

So curiously was it placed,
That, search from toe to crown,
You saw it not when he stood up,
Still less when he sat down.

From day to day the swelling grew,
So vast became that tumor,
You could not say which was the growth
And which Sir Francis Boomer.

And so at last it finished him,
Despite his numerous staff,
He explained the cause of death
In this his epitaph:

"My ailment could not treated be,
The times were out of joint;
There was no specialist upon
The Perineal point.

"Some doctors find their work before,
And others theirs behind,
But none devotes attention to
The spot which I've defined."

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ANTITHERMOLINE gives quicker and better results than any other local treatment in all inflammatory conditions and congestions, Ulcers, Boils, Burns, Hemorrhoids, Pruritis, Inflammation of the Bowels, Dysmenorrhea, Mastitis, Epididymitis, Orchitis, Chancroids, Synovitis, Articular Rheumatism, Erysipelas, Phlebitis, Wounds, Bicycle Injuries, etc.

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Pure Strontium Salts.*

The precise investigations of Dr. Laborde communicated to the French Acadeny of Medicine and the Society of Biology, prove that pure strontium salts (Paraf-Javal), far from being harmful, have on the contrary a favorable influence on the phenomena of nutrition.

Laborde found, that much of the good which was produced when the strontium preparations were administered, was due to the antiseptic influence exerted on the kidneys and bowels during their elimination. His experiments demonstrated that dogs and other animals, grew fat, and that their general health improved where Paraf-Javal's pure strontium salts (which are free from toxic Barium) were regularly mixed with their food. Where Potassium or sodium salts were fed to the same animals, this effect was entirely wanting; on the other hand, it was soon apparent under such circumstances, that the hair became rough, loss in weight was promptly noted and sooner or later death resulted.

This bears out the statement of Shoemaker, that, "Potassium is a cardiac poison, a muscle and nerve paralyzer)through its influence upon protoplasm), and destructive to the ozonizing function of the red blood corpuscles."

Dr. Leon L. Soloman in the American Therapist of November 1898, cleverly sums up the advantages of the strontium salts, over the salts of other bases as follows:

(a) "The element, strontium, seems to be not only non-irritating, but actually possessed of a sedative property, which is manifested to a greater or lesser degree throughout all of the preparations of strontium.

(b) It forms chemical union with radicals, to produce preparations identical with those of potassium and sodium.

(c) On account chiefly of their sedative properties, the various salts of strontium may be profitably employed to take the place of the corresponding salts of either potassium or sodium."

Professors Germain See and Fere have shown the absolute innocuousness and remarkable action of strontium salts, the purity of which they considered to be an absolute sine-qua-non for therapeutic efficiency, and, for their own tests, made exclusive use of the strontium salts made by the Paraf-Javal process.

Clinical proof of the advantages of the strontium lactate, bromide, iodide and

*F. S. Mason, M. P. S,

salicylate (over similar ammonium, Potassium and sodium salts) is abundant.

Drs. Constantin Paul and Dujardin-Beaumetz found that bromide of strontium (Paraf-Javal) possessed the indisputable advantage of being better borne by the stomach than the other alkaline bromides.

Professor Germain See says: "It never produces any disastrous effect on the stomach even in large doses. Of thirty-two patients suffering from gastric dilatation, all improved and some were altogether cured. It prevents the acetic and lactic fermentations and the formation of the gases of decomposition, relieves nervo-gastric irritation and controls morbid gastro-intestinal fermentation without causing depression." (Academie de Medicine October 1891).

The indications are those of bromide of potassium, in such nervous affections as epilepsy, hysteria, asthma, chorea, paralysis with involuntary agitation, and dyspepsia in its various forms.

Strontium iodide (Paraf-Javal), by increasing intravascular pressure, relieves the nervous irritation of the heart and thus strengthens its contractions without adding to their number, while as compared with the potassium salts, it is less violent and abrupt in its effects.

The iodide is indicated in vascular affections relating to lesions of the myocardium and intracardiac orifices, asthma, angina pectoris, scrofulous manifestations, eczema, and syphilis.

Lactate of strontium (Paraf-Javal) exercises a favorable influence on the gastro-insestinal functions, hence it is indicated in conditions of depraved nutrition, diabetes and albuminuria.

Dr. Constantin Paul employed it with advantage in visceral congestion, (in which it gave better results than lithia) and in Bright's disease, and his observations have been confirmed by others, showing that Lactate of strontium (Paraf-Javal) is indicated in parenchymatous, rheumatismal and epithelial nephritis; in the nephritis of gouty and scrofulous patients, and in the albuminuria of pregnant or recently delivered women. Dr. Bucquoy found that the amount of albumin in the urine was reduced one-half within twenty-four hours after the beginning of treatment.

The essential point in preferring strontium bromide, iodide, lactate, etc,, being their absolute purity, those prepared by the Paraf-Javal process only, should be used.

These are exempt from even traces of toxic barium salts and if tested with a saturated solution of strontium chromate, their solutions do not give even the slightest cloudiness, whereas the impurity of the commercial salts is betrayed by this reagent. Strontium bromide, iodide, lactate, and salicylate are prescribed in the same doses as the potassium, sodium or ammonium salts, but acts more promptly and in many cases, even smaller doses give good results.

The best forms to prescribe are the

Standard Solution of Bromide (Paraf-Javal) 60 grains to oz.

Standard Solution of Lactate (Paraf-Javal) 60 grains to oz.

Standard Solution of Iodide (Paraf-Javal) 30 grains to oz.

Compressed tablets of salicylate (Paraf-Javal) 5 grains each.

The solutions are permanent and palatable and stocked by leading pharmacists.

P. S. The U. S. Agents, E. Fougera & Co., 30 North William Street, New York, will send samples to any physician who is willing to pay the express charges.

Treatment of Lupus by Hot Air.

Werther (Munch. med.Woch., February 12th, 1901) reperts 4 cases of lupus treated by Hollander's hot-air method. Three cases healed and 1 relapsed. The method consists in the application of concentrated hot air up to a temperature of 300 degrees. The healthy skin is less affected than the lupus patch. The hot air has the advantage over steam that it can be concentrated on the affected parl, while steam spreads. The resulting scars are good. The method requires a general anesthetic. The healing takes three or four weeks. The author especially recommends this method in lupus of the eyelids.—*British Medical Journal.*

Worthy of His Hire.

A stranger got off the street car, and accosting a newsboy asked him to direct him to the nearest bank.

"This way," said the newsie, and turning the corner, pointed to a sky-scraper just across the street.

"Thank you, and what do I owe you?" said the gentleman, pulling a penny out of his pocket.

"A quarter, please."

"A quarter! Isn't that pretty high for directing a man to the bank?"

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Gastroptosis and Jaundice.

Dutton Steele (Univ. Med. Mag., February, 1901, p. 838) records the case of a single woman, aged 39, who had a severe abdominal attack, of what might have been hepatic colic, followed by chronic gastro-enteritis. Fourteen months after the onset of symptoms jaundice developed and steadily increased. She was the subject of gastroptosis, but not of enteroptosis, and, on restoring the stomach to its place by a belt, the jaundice improved and finally disappeared. Gastroptosis alone will not produce jaundice; experiments on the human subject showed that the bile would still flow into the duodenum when the pylorus was pulled down, and traction then made on the bile duct in the lesser omentum, If, however, the ducts are fixed by adhesions in the portal fissure, a very moderate degree of traction produced by a displaced pylorus may induce kinking of the ducts and jaundice. No reference to any case of jaundice produced by gastroptosis pure and simple is, the writer states, to be found in literature. Gastroptosis will, therefore, readily produce kinking of the ducts and jaundice in the presence of adhesions around the ducts, but cannot have this effect in their absence,—*British Medical Journal.*

Diet During Lactation.

Temesvary (Monats. f. Geb. u. Gynak., November, 1900) dieted 216 women who were suckling. For four days he put each woman upon one diet, and subjected her to six changes of diet, each continued for four days. The dietaries were: (1) the subject's ordinary mixed diet; (2) milk diet; (3) diet chiefly vegetable; (4) diet chiefly meat; (5) liberal mixed diet; (6) ordinary mixed diet with about a pint and a-half of beer daily. The milk was most freely secreted under the liberal mixed diet, and its relative proportion of fat was largest under the generous allowance of food. Ordinary mixed diet came next, and last came vegetable and animal diet.—*British Medical Journal*

The Superior Qualities of Sanmetto in Cystitis, Prostatitis and Gonorrhea.

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R. B. Meek, M. D.,
Mem. N. W. Ohio Med. Soc., Mem. Sandusky Co. Med. Soc.
Fermont, O.

Treatment of Some Septic Conditions.

To Professor Crede belongs the credit of having shown that in metalic silver in the colloid form, we possess an agent which not only destroys pathogenic organisms, but renders their toxins inert and harmless. In an article recently published in the Medical Summary, Dr. Max Staller, Surgeon to Mt. Sinai Hospital, Philadelphia, relates his experience with the unguentum Crede, a 15 per cent. preparation of soluble silver, and this report serves well to illustrate the wide range of utility of this remedy in affections of bacterial origin. During the past two years the author has treated 25 cases of erysipelas with unguentum Crede. The ointment was rubbed gently into the inflamed area for 20 or 25 minutes, by which time the greater portion had been absorbed. Any case, if seen early, was cured in 3 to 5 days. Improvement was noticeable within 5 to 6 hours, the skin losing its parchment-like appearance, becoming softer, and the burning sensations also subsiding. A case of cellulitis phlegmonosa of the leg in a patient suffering with nephritis was cured within 3 days by four applications of unguentum Crede of 2 drachms each at intervals of 5 hours. In gonorrhea at the first threatening symptoms of bubo, two or three inunctions of one-half drachm over the affected area, with rest for 24 hours, always aborted pus formation. Remarkably successful results were obtained in mammary abscess from the use of the ointment in connection with the ice bag. Even when it failed to prevent suppuration, it localized the process and completely relieved the pain and discomfort. An inunction of 2 drachms repeated three times at intervals of 4 hours, usually prevented pus formation if the case was seen early enough. During an epidemic of cerebro-spinal fever the author employed unguentum Crede in 7 cases, with only one death, each patient receiving six inunctions, besides the routine treatment. In 50 cases of scarlet fever, some of marked severity, the remedy also exerted a pronounced beneficial effect. A mixture of unguentum Crede, 2 drachms, to 2 ounces of ung. aqu. rose was rubbed into the body and in none of these cases was the least trace of albumen observed in the urine.

The Discovery of the Laryngoscope.

On March 17th Senor Manuel Garcia, the the famous *maestro* and the "enlie true begetter," in a practical sense, of the laryngoscope, entered on his 97th year. He was born at Madrid on March 17th, 1805, and has a vivid recollection of the Penninsular war, owing to which his father migrated to Naples when the boy was but 7 years of age. After Waterloo the family settled in Paris for a while, but in 1825 they all crossed the Atlantic, where Garcia *pere* hoped to be the apostle of grand opera. The enterprise was but indifferently successful. Young Garcia returned to Europe, and settled first in Paris and afterwards in London as a singing-master, and speedily acquired a European reputation. The discovery which has given his name a place in the history of medicine, was made in 1854, and in the following year he presented a paper to the Royal Society of London, entitled Physiological Gbservations on the Human Voice. His investigations were all carried out on himself by means of two mirrors—a small one at the end of a long stem for introducing into the pharyn, and a large one which served both for directing the light on to the smaller mirror, and for enabling the operator to see the image formed on it. Babington had employed the same method twenty-two years previously; but he never examined his own larynx, and no notice was taken of his work. In this country Garcia's discovery shared the same fate as Babington's; it was treated with apathy and even with incredulity. His paper, however, fell into the hands of Dr. Turck, of Vienna, who, after some experiments, appears to have thrown the mirrors aside as useless, and to have formed the conclusion that "he was far from entertaining too sanguine hopes about the employment of the laryngeal mirror in practice." Fortunately the discovery attracted the attention of Czermak, whose observations converted the laryngoscope from a "physiological toy" into an instrument of scientific research, and who popularised the method by his demonstrations on his own throat in Vienna, London, and elsewhere. It may be remembered that we gave a portrait of Senor Garcia in the Queen's Jubilee Number of the Journal, published on June 19th, 1897. We hope the venerable discoverer of the laryngoscope will live to celebrate the centenary of his discovery!

How to Cure Insomnia.

The California Medical Journal thinks a very simple method of inducing sleep in cases of persistent insomnia, and one that has succeeded where many drugs have failed, is—simply administer a moderate amount of liquid food before the patient goes to bed. This diverts the blood from the brain to the abdominal organs, and takes away the cerebral excitement that precludes sleep.

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Vegetarianism.

In an interesting paper recently published, Professor Ferdinand Hueppe discussed the question whether vegetarianism can be supported on scientific grounds. He considers that geological evidence proves that the cradle of primitive man was in a northern land, and fixes his evolution in the tertiary period when Asia was still partly separated from Europe, but connected with Africa and united with America by a land bridge. The human-growing anthropoid, owing to hard times, left the forests and became a beast of prey, probably the most cunning and ferocious that has ever stalked on the face of the earth. In the interglacial period man was a mammoth hunter. The Danish kitchen middens show that the primitive Europeans were fish and flesh eaters. The Asiatic stock, meanwhile, evolved into shepherds and began to cultivate cereals in the alluvial plains of the great rivers. The irruption of Asiatics into Europe brought about the introduction of cereals and domesticated animals, and a mixed diet became usual. With the overgrowth of population in the East vegetarianism arose, and man took to rice eating, not from desire, but through the scarcity of animal food. The Eskimo remains to this day an example of a pure flesh-eater. The anthropoid stock from which man evolved fed on nuts, fruit, eggs, small birds and insects. Such is still the mixed diet of the ape, as well as of the Arabs of this age. Owing to the struggle for existence man has evolved into a flesh-eater, a mixed feeder, and lastly into a vegetarian, but vegetarianism became possible to him only by the introduction of fire and cooking. He has neither the teeth nor the gut of a herbivorous animal; otherwise he would naturally graze the fields, and in winter chew oats in a manger. It has been abundantly proved by breeders of pigs and other animals that the best proportion of albumen to carbohydrates in the diet is 1 : 5. Among the Eskimo it is found to be 1 : 29, among Europeans on a mixed diet 1 : 5.3. The Irish peasant, on the other hand, comsumes, or used to consume, a diet containing ten times as much carbohydrate as albumen (1 : 10.6), and in a Munich vegetarian Voit found the proportion to be 1 : 11. A diet such as that of the Irish peasant increases the death-rate in the young and the old; that is to say among those in whom the excess of carbohydrate cannot be burnt off by hard bodily labor. Such a diet can be consistently borne only by a man bred to it from infancy, and accustomed to the doing of hard work. There is no advantage in vegetarianism as a working diet. The same amount of potential energy (33 per cent.) consumed as food appears as work in the carnivorous dog, the herbivorous horse, and the omnivorous man. No vegetarian animal, not even the horse, ox, camel, or elephant, can carry the weight of his own body. The carnivorous lion, on the other hand, gripping a calf equal to himself in weight, can jump a hurdle 6 feet high. The lifting power of man, the mixed feeder, exceeds that of any other mammal. Louis Cyr is recorded to have lifted 1,669 kg., Little carried 600 kg. fifteen steps, a Tyrolese in six hours carried 110 kg. to an altitude of 1,500 m. A man of 75 kg., working in the docks will, many times in the course of one day's work, carry sacks weighing 100 kg. The diet of the vegetarian, reckoned in calories, is found to value 86 calories per kg. of body weight, and the proteid is worth only 6 per cent. of this. The man on a mixed diet, on the other hand, eats only 39 calories per kg. of body weight, and the proteid equals 14 per cent. of this. The vegetarian is like an overheated steam engine which is in danger of explosion owing to the use of a wrong kind of fuel. His digestive system is forced to deal with a far greater bulk of food and energy which might be used for the higher purposes of mental activity is wasted. Only in the condition of hard manual labor in the open air can a purely vegetarian diet be borne. Of course he who consumes milk, eggs, butter and cheese cannot be considered a vegetarian. Vegetarianism does not, as is sometimes suggested, lead to a mild and gentle spirit, for the wild buffalo, the rhinosceros, and the rice-eating Chinese pirate are alike remarkable for ferocity and cunning. Finally the vegetarian is exposed to as many chances of poisoning as the flesh eater. The vegetarians of our time, Professor Hueppe tells us, belong to the class of neurotic men who, failing to meet the strain of town life, ever seek for a "heal-all" in one or other crank. Their doctrines, pushed with fanatic zeal, make no impression on the healthy, and only tend to overthrow the balance of others who, like themselves, are the victims of an unnatural mode of existence.—*British Med. Journal.*

Sanmetto as a General Tonic.

Dr. J. W. Russell, of Clyde, Ohio, writing, says: "I have used Sanmetto extensively in genito-urinary irritations, and in atony of the generative system, with splendid results. I am also pleased with its action as a general tonic in cases debilitated as a result of la grippe."

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Vice Crusades.

The spasmodic attacks of virtue in a community that lead to harsh measures against the vicious classes often do more harm than good. The efforts of the reform administration in this city five or six years ago simply drove vice from its usual haunts and scattered it broadcast throughout the city. The volume of vice was not diminished; it was only diverted from its usual channels. True reform must not come simply from effort at repression, but from consideration of the different phases of the question and an endeavor to provide remedies for many concomitant evils. Homes for fallen women must be founded and encouraged in order to give these people a chance to rise from their present condition. The age of consent in women must be raised by law so that the present recruits to the ranks of prostitution, as the result of early seduction of yonug girls, shall cease. The purveyors of vice who tempt young women into taking up a life of prostitution must be punished severely and must be hunted down without compunction. Dance-halls must be suppressed when of bad character, or thoroughly regulated when it does not seem that their only object is the encouragement of vice, or the providing of a place of assignation. Even with all this entire reformation will not come. Regulation of the evil that is left will be necessary. Public opinion in this country will not permit the licensing of vice, as it is called. The French system was tried at St. Louis in 1872, but it lasted for but one year and then was swept away by the combined efforts of all the religious people of the State.—*Medical News.*

Treatment of Gonorrhœa.

Scherck (Therap. Gaz., January 15th, 1901) uses one of the following injections for acute gonorrhœo. Mercuriol 2 per cent. protargol 5 per cent. Crede's silver 1 per cent. Injections are made with a hard rubber blunt-pointed syringe till the anterior urethra is distended. The fluid is retained 5 minutes, and the urethra afterwards irrigated with two gallons of 1 in 1,000 permanganate of potash solution. The combined treatment is carried on twice a day, and the permanganate gradually increased to 1 in 500. The average time required for destruction of the gonococci is said to be six to ten days, and the total duration of treatment fourteen days. After the gonococci have disappeared the permangnate irrigations are continued alone. Internal medication is used at the same time, a combination of cystogen gr. v and ol. santal, ♏ x being given in capsules every four hours. Cystogen is said to form formaldehyde in the urine and act as a germicide. In chronic posterior urethritis the author practises massage of the prostate *per rectum*. The urethra is then irrigated and one of the above preparations injected into the prostatic urethra with a deep syringe.—*B. M. J.*

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It is with great pleasre we cheerfully recommend the firm of G. W. Flavell & Bro., 1005 Spring Garden Street, Philadelphia, to those of our readers who may desire anything in the way of Elastic Stockings, Uterine or Abdominal Supporters or Elastic Trusses. Their goods are the best on the market—perfectly reliable—while their prices are exceedingly reasonable. Every article they manufacture is guaranteed to be just as represented. When in need of anything in their line do not fail to correspond with them.—*The Toledo Medical and Surgical Journal.*

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Treatment of Purulent Pleurisy.

G. Marion emphasizes the following points in the treatment of purulent pleurisy: (1) Evacaation as soon as the presence of pus is determined. (2) Avoidance of general anesthesia, which favors syncope and asphyxia which are comparatively frequent during operation for empyema. (3) The point of evacuation should be at the most dependent spot. (4) The pleura should be irrigated. The writer gives an account of thirteen cases of purulent pleurisy, not tuberculous, which he has treated. Two patients died during the operation—one from syncope, the other from asphyxia. Probably, if they had not been anesthetised, the accident would not have occurred. Another died a month after operation from amyloid degeneration of the viscera. His operation had been performed at least two and a half months after the beginning of the pleurisy. Another, who was not operated on till two and a half months after the beginning of the pleurisy, developed a sinus which demanded a second operation. This would undoubtedly have been avoided had the first treatment been early. The other ten patients made a rapid and complete recovery. The bacteriological examination which was made in eight cases demonstrated the pneumococcus in two cases; in one case the staphylococcus associated secondarily with the pneumococcus; in five cases the streptococcus associated with anærobes. —*La Presse Medical.*

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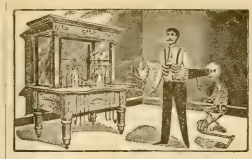

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The Finger Better than the Curette in Abortion.

Stahl (Amer. Gyn. and Obstet. Journal, October, 1900), like Budin and Lantos, prefers "curage" or the use of the finger to curetting for the removal of the membranes in early labor. The finger has the great advantage of allowing the recognition of foreign bodies. Thus in one case it happened that a sponge tent had been used to produce abortion. Fever and hemorrhage set in, and medical aid was sought. While peeling off the membranes the finger detected the foreign body. A second touch interpreted its nature. Even after the membranes had been expressed by abdominal pressure it required two attempts with the finger to bring the piece of sponge away owing to its physical characters. Pressure alone simply made it slip sideways. In a second case a laminaria tent had been introduced, slipped above the os internum. With the finger-tip the cervix was easily opened, and the tent was removed by means of a dressing forceps. The partially loosened oval cast was shelled out entire. In a third case, where spontaneous abortion had occurred, the decidua, already loose, was removed entire by aid of the finger. Thus there is a second advantage in using the finger, for the curette or forceps removes the membranes piecemeal, nor can the obstetrician be sure that no fragments are left behind. When the tip of the forefinger is too short to reach the fundus, the midder finger may effect that object. The forefinger is, at the same time, bent under the anterior lip of the os, the ring and little finger being slipped behind the posterior lip. The left hand presses or steadies the uterus from the abdomen. The middle finger is specially fitted for detaching a placental polypus from near the fundus. There is no reason to believe that "curage" is more painful than curetting, and it is much less likely to do harm when the patient is under an anesthetic.—*British Medical Journal.*

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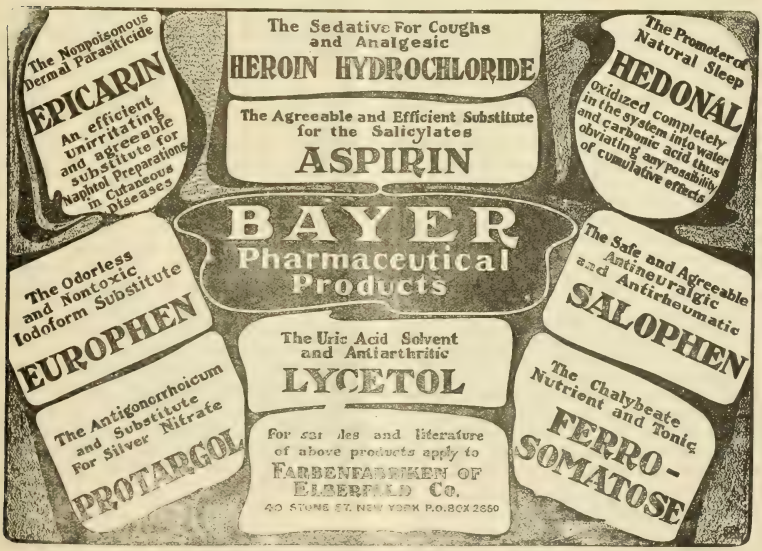
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The Right to Will One's Body for Scientific Investigation.

The Supreme Court of California, in the case of Enos vs. Snyder, has laid down a ruling the results of which appear to us to be very regrettable from a scientific point of view. It has decided, in a contest between next of kin, on the one hand, and claimants under a will, on the other hand, for the possession of a corpse, that a man cannot by will dispose of that which, after his death, will be his corpse. The custody of the corpse and the right of burial belong to the next of kin in preference to the administrator. This view is based on the fact that the general English and American legal authorites establish the rule that, in the absence of statutory provisions, there is no property in a dead body. If this ruling is correct, the sooner statutory provisions are obtained enabling a man who feels that a great benefit to humanity will accrue, through increase of medical knowledge, by the continuance *post mortem* of an investigation into his case, or that new light may be shed upon anthropological, psychological, or other scientific problems, to authorize by will such use of his corpse, the better. We commend this subject to the consideration of the Medico-legal Society.—*New York Medical Journal.*

Penetrating Wound of the Abodomen.

Chaput (*Bull. et Mem. de la Soc. de Chir. de Paris*, January 1st, (1901) in a report on an interesting case of complicated injury of the abdomen, communicated by Morestin, lays down certain rules with regard to the surgical treatment of penetrating wound of the anterior abdominal wall. In Morestin's case, which was one of a stab in the right inguinal region, after profuse parietal bleeding had been arrested by ligature of the wounded spermatic and epigastric veins, a free extension of the original wound revealed also a wound of the appendicular artery, and a large opening into the cæcum, though fæcal matter had been extruded into the peritoneal cavity. After the artery had been secured, the cæcal wound was closed by two rows of sutures. The patient made a good recovery. Chaput, in discussing the treatment of cases of this kind, insists on the importance of a systematic operation. The wound in the abdominal wall, he holds, should not be opened up unless there be serious hemorrhage from a parietal vessel. In the absence of any signs of such hemorrhage, it would in his opinion be preferable to perform either median or lateral laparotomy in order to obtain a better view of the possibly injured viscera, the median incision being selected when the original wound is near the middle line, and the lateral one when the wound is situated on one or the other side, and over the cæcum or the sigmoid flexure. If there be free bleeding from some injured vessel in the obdominal wall, then the original wound should be freely opened up, not only for the purpose of securing this vessel, but also for exploring the abdominal cavity, and for exposing freely the intestine. If there be indications of profuse intra-abdominal bleeding, it would be advisable, Chaput states, to perform a free median laparotomy.—*British Medical Journal.*

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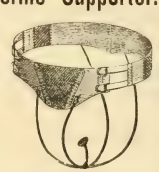

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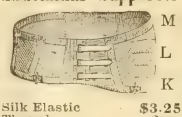

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Tennessee State Medical Society,

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During a practice of fifteen years, I have attended quite a number of such cases, with a mortality of eighty per cent. Last winter I treated two cases, and both recovered.

Case 1.—A. F., male, aged twenty-two months, for two days previous to my first visit had what the mother supposed to be a hard cold. I found the child's temperature 102 deg., F., pulse 135, appetite poor, bowels constipated, and urine scanty, obstructed respiration, and the peculiar cough characteristic of croup. With the exception of a few bronchial rales, the lungs appeared normal.

Treatment.—One-tenth grain of calomel every two hours until bowels moved freely; one-half grain of quinine sulphate every four hours; tartaric emetic and bichromate of potash, each one one-hundred grain, every two hours. External applications of turpentine, one part, and olive oil, five parts. Also had room saturated with the vapor from a dish on the stove, containing boiling water, to which we added several times a day a tablespoonful of a mixture containing equal parts of carbolic acid, turpentine, and oil of eucalyptus. The next morning I found the patient's condition about the same. Treatment continued.

At 8 p. m. the father came for me (eight miles in a severe snowstorm), saying the baby was in such a low condition that I should probably find him dead when I arrived. Beside my regular medicine bag, I also took a tracheotomy tube and a vapo-cresolene lamp. The little sufferer seemed to be beyond aid, and the end near; nevertheless I succeeded in having him swallow one-hundredth grain glonoin, and in a few minutes an emetic of ipecac, erected a sort of a tent about the craddle, lighting the vapo-cresolene lamp, and placing it on one side, fixing a newspaper so that the vapor must draw across the child's face, leaving a small outlet on the other side of the tent.

In less than an hour the child became uneasy, and vomited quite a quantity of mucus, and several pieces of membrane, the largest measuring three by one-half inches. This gave him some relief, and the breathing became somewhat freer. Keeping up the vapo-cresolene, I prescribed the dark iodide of lime, one-quarter grain every hour; sulphate of quinine, one-half grain every four hours, and one-half teaspoonful of whisky every two hours. For nourishment, bovinine and milk.

In forty-eight hours improvement was so marked that the above treatment was stopped, syrup hypophospite compound and syrup hydriodic acid substituted.

Case 2 occured a few weeks later, and was similar to the first one. Profiting by my previous experience, we at once started the vapo-cresolene, and giving quinine and iodide of lime, as in the other case, also a laxative, and turpentine and oil applications to the chest and the throat. Although he was in a precarious condition when treatment was commenced, he improved so that by the third day we considered him out of danger.

In my opinion, the vapo-cresolene was an important factor in the cure of these cases, as well as in whooping cough, having used it considerably in an epidemic, some years ago, with benefit.

I think we are prone to change medicines too often in all kinds of diseases, expecting too quick results, and not having patience to give a certain line of treatment a thorough trial. From experience, I find that cases of pneumonia, typhoid fever, and many other diseases, will do better (with rare exceptions) on a plan of treatment laid out during the first few days, than by daily changing medicines. By this I do not intend to convey the idea to use a stereotyped treatment in all cases, but a careful study of each case at the start, and then decide on a line of treatment, treating complications as they arise.

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True Bone in the Lung.

Devic and Paviot have made a careful pathological examination of 2 cases in which bone was found in the lungs, and have collected from the literature 17 cases, of which details are recorded. Of the 17 cases 14 occurred in men, 3 in women; only 3 of the patients were under 40, none under 25 years of age. In no case had the occurrence been suspected during life. A few of the patients had histories of antecedent acute lung trouble, most of them suffered either from chronic bronchitis and emphysema or from chronic pulmonary tuberculosis. Microscopically four forms may be distinguished: (1) Ramified: Small ramified channels of bone, generally traversed by tendinous fibres, and often surrounded by small granulations. (2) Tuberous: Small rounded pieces of bone seldom larger than peas. These occur in the parenchyma of the lung or situated immediately under the pleura. This form is the one met with in the younger subjects, and is probably the most rudimentary. (3) Diffuse; Occasionally large deposits of bone are found occupying the greater part of a lobe, generally the upper lobe. (4) Plaques: Lubarsch has found bony trabeculæ in 17 cases of calcified caseous patches, especially around old necrotic cavities. The bone may occur at the base of the lung, though more frequently it is situated in the upper lobe. Cohn believes that bone may be developed from interalveolar or perivascular connective tissue. Luschka attributes the occurrence to an antecedent interlobular pneumonia. Arnsperger denies the perivascular origin. The authors found the smallest fragments of bone situated at the points of junction of several interalveolar fibres or in the interlobular connective tissue. As the result of their observations they conclude: (1) That the new-formed bone has no relation to the bronchial cartilages; (2) that bone may be found in any sclerosed areas, whatever their origin. Rokitansky believes the process to be one of senile involution; many authors have attributed it to new formation. The evidence, however, of preceding or concomitant pulmonary disease, and the fact that connective tissue fibres may be traced from healthy lung tissue till they pass gradually into bone lamellæ afford a strong probability, if not an actual proof, of an inflammatory origin of the bone.—*British Med. Journal, March 16.*

In chancroid keep the inflamed area perfectly clean and dry, and apply aristol four parts, desiccated alum one part.

The Value of the X Ray in Medicine.

F. H. Williams, of Boston, states (Med. Record, January 26th, 1901) that he has made use of a static machine with eight plates, each 6 feet in diameter. With such a machine the heart of man could be seen at a distance of 15 feet. The apparatus should have an adjustment for readily turning the light up and down. Objects could often be made out in a moderate light which would escape observation in a very strong one. This adjustment was especially necessary when the chest was examined for signs of early tuberculosis. By means of radiographs physicians could determine the presence of calcification in many of the arteries, even of the aorta itself, in certain cases. It was also possible under favorable circumstances to distinguish fatty tissues. In the abdomen a portion of the outlines of the dense organs, such as the liver and spleen, were best seen by distending the intestine with gas or air, as this produced a greater contrast; or the subnitrate of bismuth might be mixed with bread and milk and given to the patient. The outlines of the pelvis could be followed by means of radiographs, and its transverse diameter determined more accurately than ever before. In examinations of the chest the patient should be seated in a suitable chair, or should lie down on a stretcher. The light should always be at a distance of about 3 feet from the fluorescent screen, and in examinations of the chest at the point where a line joining the nipples crossed the median line of the body. Thus observations made at intervals could be compared with one another, or examinations on the same patient made by physicians in different localities could be compared. Fluorescent screens were better than radiographs for such work. In order to judge of the density of the lung, one must estimate not only the amount of light coming through the chest, but comparison should be made of the two sides of the chest. In emphysema the thorax would be found lighter throughout than under normal conditions. The excursion of the diaphragm was also much lower and more restricted. The heart changed its position very little between expiration and inspiration in such cases. In early tuberculosis the excursions of the diaphragm were shortened on the affected side, and the heart was drawn a little to the affected side. In addition there was found an appreciable increase in the density of the affected side. A photograph of a case of pneumonia on the seventeenth day—that is, at a time when several physicians had been unable to detect any physical signs of the disease remaining—showed that there was a very decided increase in the density over the affected side. If an x-ray examination showed that the outlines of the diaphragm could be readily made out on both sides, one could be sure that there was no pleuritic effusion present; if on the other hand, these outlines were indistinct on one side, it was probable that the partial obscuration was the result of such an effusion, though it might arise from other causes. By x-ray examination it was possible in some cases to determine the borders of the heart more accurately than had been possible hitherto. In some cases of valvular disease or of renal disease it was no longer possible to see clearly the outlines of the diaphragm or of the lower part of the heart, owing to the presence of œdema of the lungs. In central pneumonia it was practically always possible by x-ray examination to make out the increased density of the centre of the lung, even though this could not be detected by auscultation and percussion. Empyema following pneumonia was often overlooked, but if an x-ray examination were made, such an error would not be likely to occur. The x-ray examination was of special service in two kinds of cases of aneurism—namely, those in which the aneurysm did not present well-marked physical signs, and in a not inconsiderable number of cases of supposed thoracic aneurysm which the x-ray examination proved not to be of this nature. New growths in the chest were sometimes, as was well known, very difficult of recognition by ordinary physical examination. An x-ray examination would enable one to detect such a growth earlier, and determine its position and size. The dangers of x-ray examination lay in faulty methods and wrong inferences, and were not inherent in the method itself. Among the thousands of x-ray examinations made at the Boston City Hospital and in his private practice there had not been a single case of x-ray dermatitis. The method, like other methods of precision, required experience and skill for its successful employment. No mode of examination was more difficult of execution because of the time consumed and the experience necessary rightly to interpret the results of such examinations. A physician who would carefully study 1,000 cases, both by the ordinary methods of physical examination and by the use of the x-ray, would find his skill in physical diagnosis materially improved. Williams said he did not wish to be understood as advocating the substitution of this method for any other, but he claimed only that it was an important auxillary.—*British Med. Journal.*

THE PATRON SAINT OF THE STATIC MACHINE

The inventor of the Mica Plate Static Machine, Rome V. Wagner, M.D., is well known in all branches of electrical work pertaining to Physicians and surgeons, but the rapid rise in popular favor of his Static machine ranks him as the Patron of Statics. Have you seen his X Ray Talk gotten ont by R. V. Wagner & Co. Chicago.

Sanmetto in Debility and Irritability of Genito-Urinary Organs following La Grippe.

Have been using Sanmetto for past three years with very satisfactory results in different forms of debility and irritability of genito-urinary organs. Am now using it on case of old lady, the sequelæ of La Grippe, that is giving gratifying results. Was attacked after La Grippe with hematuria, irritable stomach and a general debility. After trying various remedies without success, placed her on Sanmetto, which she retained, and at once a marked improvement began. She is now on second bottle and improvement in general strength is marked. Hematuria is stopped. In cases of chronic urethritis I consider Sanmetto a specific. Will continue to keep Sanmetto within reach.

FRANK MCCORMICK, M. D.,
Mem. Sandusky Co. Med. Soc.
Fremont, O.

Uric Diathesis.

Please accept my best thanks for the Lithiated Hydrangea (Lambert) you forwarded to me for the purpose of making trials in my practice. To know that this pharmaceutical product contains the Benzo-Salicylate of Lithia, suffice to induce me to prescribe it in full confidence to a certain class of my patients, and I have obtained most satisfactory results from its admistrations, especially to those suffering from Gout and Rheumatism, improvement being rapid, and manifested after but a few doses of the Lithiated Hydrangea had been administered. I am continuing my observations with said preparation in order to gain a more thorough knowledge of its therapeutical effect in cases of Cystitis, Hæmaturia and Calculus.

F. VIDAL SOLARES, M. D.
Calle de Vergara, num. 12, Barcelona.

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The Charlotte Medical Journal.

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Materia Medica and Therapeutics.

By J. A. Reagan, M.D., Weaverville, N.C.

Solomon in his day said: "Of making many books there is no end." If he were living in this age he might with equal propriety say of making many medicines there is no end, nor is there any likelyhood to ever be. We have quacks who profess to have medicines that no one else has, others who say they learned secrets of the old Indian medicine man, as though ignorance was preferable to intelligence and science. Then there is the unnumbered patent medicines that propose to cure all diseases that flesh is subject to. Then comes a more respectable class that have their inventions protected by a certain mark which prevents any other manufacturer from making the medicines thus protected, hence their medicines are classed as proprietary.

These good kind hearted firms send out agents, who, in many cases, were never in a Medical College, to instruct physicians how to treat their patients for all kinds of diseases, and in every prescription they have one of their late inventions, as it is absolutely necessary to their success. We ought to save these dear wiseacres, as they, without money or price, give their advice, and propose leaving samples of their firm's greatest discoveries, and take such pleasure in imparting to physicians their wonderful curative properties. It reminds me of a reasonably well-dressed young man that once came to my office and introduced himself as Doctor B., from Tennessee. I said, "Well, Doctor, I am happy to make your acquaintance. Where did you graduate in medicine?" He said "I never attended any Medical College." "Well, my dear sir, how did you come by the title, Doctor?" "I read medicine awhile under Doctor A." "What do you propose to treat, as you must be a kind of specialist?" "Oh, I treat any kind of disease, and have cured several who had been given out by other doctors." "Well, sir, I am sorry to inform you that I cannot recognize you as a physician." He left my office, and never returned. He managed to get five patients—four died, and the father of the fifth became alarmed and sent for a physician, who had hard work to save the boy's life. He then left for parts unknown.

As I treated him, would it not be proper for physicians to ask those persons who are so willing to instruct them, where they graduated, and if they have never attended a medical college to tell them that they prefer not to have their advice? All these medicines of the different quacks, proprietary medicines and the prescriptions of old women, who have seen "just such a case, and I gave them so and so, and they got well right away," would seem to be enough to kill or cure all diseases that flesh can be afflicted with, yet the half has not been told. We have the United States Pharmacopia which is endorsed by the medical profession, which contains hundreds of medicines, their alkaloids, fluid, and solid extracts, tinctures, compounds &c. Medicines of minerals, metals, vegetables, from the roots, bark, leaves, and blossoms, from the fungus growths on vegetables; from the young cow, the sheep, the swine, the horse and fowl.

The regular Chemists are at work all the time making new discoveries. It seems to me that they have well nigh found everything that *coal tar* has in it. Wisdom and science are united to find the remedies that may, when used judiciously, relieve suffering humanity, if it is a disease that medicine can cure, or benefit. These facts presenting themselves to us, where are we to begin, and where end, when we speak or write on Threraputics and Materia Medica? When looking over the field we are reminded of an old man who lived in Tennessee, near where we were raised, who was inclined to be easily thrown off his guard, and even small things made him swear profanely. He loaded up his wagon with turnips and started to market. There was quite a steep hill a short distance from the town. His team had nearly reached the top when the pressure on the hind gate of his wagon bed caused the gate to give way, and all his turnips rolled out, and the most of them went to the foot of the hill. He stood and looked on, but never said a word. The man that was with him said, "I expected to hear you swearing." He replied, "Ah, sir, it is too big a job for me; I can not do it justice." So we say, in attempt-

ing to write on this subject—it is too big a job for us; we cannot do it justice, consequently we will confine our remarks to only one vegetable and its alkaloids—jaborandi, or pilocarpus. It is a native of Brazil, but species of it is found in several of the divisions of South America. The leaf is the part mostly used for medicine. Some botanists say it is a species of the Piper plant, and resembles that plant in its looks and therapeutic properties. It was first introduced in Europe by Dr. Continho in 1874. There is an oil made of this plant, a fluid extract, and a tincture, and also a solid extract. It has a wonderful action on the salivary glands, as well as some action on all secretory glands of the system, particularly on the kidneys and skin. All its medical properties have perhaps, not as yet been discovered. We have found it an excellent remedy in pneumonia, pleurisy and other diseases accompanied by high fevers. Our prescription is mostly as follows:

℞. Fluid ex. jaborandi, ʒi
Sweet spts. nitre, ʒi

M. Sig.: One teaspoonful in a sip of water every hour until the patient perspires pretty freely, and the fever is reduced and the thirst relieved.

We have never seen it affect the heart, as some say it does. It is certainly safer than some of the much-lauded coal tar preparations, and in our hands more beneficial. Jaborandi leaves dampened with hot water and applied several thicknesses on a swollen limb, or bealed breast, will give relief, and reduce the swelling more rapidly than any application can be used, and if pus has not formed it will prevent it forming.

We had two cases of croupus diphtheria before antitoxin was invented, and had tried all the best remedies recommended atthat day by the most experienced and best informed physicians, without benefit, and as we were acquainted with the effect of jaborandi on the salivary glands, we concluded, reasoning apriori, that it would arouse these glands sufficiently to keep the mouth moist, and ultimately loosen the membrane so it would come away, or that it might be removed. We, therefore, began the use of the fluid extract of jaborandi, in doses according to the age of the children, and gave it often enough to keep the salivary glands freely acting, and sustained the children with quinine and iron, occasionally giving a little toddy, and in twenty hours the diphtheric membrane was loosened and came away. Both the boys were well in a few days, and have been in fine health ever since.

We had a case that was of a very different kind. We were passing a house, and was called in to see a lady some 2 miles from our office, who had a severe uterine hemorrhage. We aimed to give her a teaspoonful of fl. ext. of ergot, but through a mistake gave her jaborandi. As we returned, some two hours later, we stopped to see how she was getting along, as we had in the meantime discovered our mistake, and were rather surprised when she informed us that as soon as the medicine began to effect her the flooding stopped. She said she perspired very freely. There was no return. The woman was about forty-eight years old, and passing through the menopause. Her youngest child was some ten years old. Her health has been good since that time. We give the case for what it is worth, as we have never used it for that purpose since. Some writers divide its therapeutic action or properties according to its different alkaloids. From our experience in its use, we are satisfied that there are more therapeutic properties in this plant than has as yet been discovered. It is known to increase the flow of urine, and has been used by some physicians in certain kidney diseases with reported success. When uric acid is the cause of rheumatism it is reported to have been of great advantage, and succeeded better than any thing they had tried, in relieving pain, and reducing inflammation. We have never used it in a case of rheumatism, and consequently have no experience of its effect in those cases. Some physicians are advocating the non-use of any drug, and confining themselves entirely to the alkaloids, as most all drugs have more than one alkaloid, and there is some difference in their action, hence they say it is unscientific, but we find there is, so far as our knowledge and experience goes, one property or alkaloid in all crude drugs that greatly exceeds all others, so if we understand what we want, and know that the leading alkaloid is contained in the crude drug, we can usually get the effect we desire. We are not opposed to the use of the alkaloids, and generally prefer them, as the dose is much smaller, but do not condemn the use of the crude drugs. There are some persons, owing to a peculiar idiosincracy that can not take any of the alkaloids of opium, but can bear the crude drug.

Jaborandi, in its crude state, contains in it pilocarpin, jaborin, and perhaps other alkaloids not yet discovered, yet the pilocarpin in its action is so near like the fluid extract of jaborandi, that it is hard to tell from its effect which had been given.

Some twenty years ago Dr. Adam Politzer, of Vienna, a distinguished otologist, recommended subcutaneous injections of pilocarpin hydrochlorate in the treatment

of certain chronic affections of the middle and internal ear. A few years later he began to make the injections directly into the ear through the eustachian tube instead of beneath the skin with good results.

Feichenich summarizes the result of his experience in one hundred and twenty cases of various forms of diseases of the middle ear attended with catarrh, sclerosis and adhesions. The cases were principally such as had proved unyielding to other methods of treatment, and the improvement of the hearing was generally well marked. He used from six to eight, or even ten or twelve, and did run up as high as sixteen drops, of a two per cent. aqueous solution of pilocarpin hydrochlorate. The number of injections varied from three to fifty, according to the severity of the case.

Jaborandi and laborandi is used in Brazil to disintegrate various pungent sodorific plants under the same name or title.

Dr. Continho introduced into Europe the leaves of one of the varieties of this plant which have been referred to pilocarpus jinatus. This is the plant that is said to be used, and is now called jaborandi.

In conclusion, if anybody wants to have the salivary glands fully aroused, give him one teaspoonful of the fluid extract of jaborandi, and he will be satisfied of its effect in that particular at least.

The Use of the Continuous Silver Wire Sutures in the Closure of Abdominal Incisions and the Radical Cure of Hernia.

By L. B. McBrayer, M.D., Asheville, N. C., Member American Medical Association, Mississippi Valley Medical Association, N. C. State Medical Society, Ex-President Buncombe Co. Medical Society, Ex-Coroner Buncombe Co. etc.

The responsibility of the surgeon does not cease with the recovery of his patient from the immediate effects of an operation, but he should follow them for years, and the remote effects should be noted. In arriving at a conclusion whether or not to operate in a given case, we should not limit our investigation simply as to whether or not our patient can survive the operation, but we must ask ourselves what will be the condition of our patient in after years. Among the remote effects of all abdominal operations, one that often produces total disability, so far as manual labor is concerned, is ventral hernia. As in all diseases the great desideratum is its prevention.

In this day of aseptic surgery, in this day of advanced medicine, when even the laity have come to regard a laparotomy as a common place thing, and something not to be dreaded; in this day when almost every physician feels himself competent, if necessity requires, to open the abdominal cavity, in consideration of the large number of laparotomies done every day in the year, the great medical profession owes it to suffering humanity, and suffering humanity has a right to, and does here and now, demand of the medical profession at the dawn of this twentieth century, that something be done to prevent the large number of ventral herniæ following abdominal incisions. Hernia occurs very much more frequently when drainage is used, hence we should never drain except when the indication is imperative. I am constrained to believe that even to-day we drain a great deal oftener than necessary. Hernia occurs more often when there is suppuration in the wound than when we have union by first intension, but it also occurs when we have union by first intension; but just how often I am unable to say. I have been surprised at the dearth of statistics on this subject. Up to June 15th, 1895, Winter had observed one thousand cases of laparotomy in the hospitals of Berlin, and says that nearly one-third of all the cases suffered from ventral hernia. Thirty-three and one-third per cent. is probably too high.

Kelly stated in 1899 that he had eight cases of hernia in one hundred laparotomies for pelvic disease, and that these included a variety of plans of suturing and excessive use of drainage. He believes that with his present method of suturing (interrupted, quilted, silver wire), and the abandonment of drainage, there will not be more than one per cent. of hernia, and that will follow cases where there has been suppuration in the abdominal walls, while Phelps has closed all his abdominal wounds since 1892, amounting to many hundreds, with the continuous suture of fine silver wire and has not had one single hernia.

The cause of ventral hernia is stretching of cicatricial tissue; this tissue is close akin to white fibrous tissue according to Phelps and Kelly, and often stretches as much as an inch from enlargement of abdominal walls by patient taking on flesh, while you have all noticed it stretch four to six inches when a ventral hernia exists. The prevention of ventral hernia, in my opinion, can be accomplished by the stitching together of the fascia with a continuous suture of small silver wire. One thing is certain

when you use this method, and that is that hernia cannot occur as long as this fascia is held together, and the silver wire will remain there until it is removed. The only objection that I have heard offered is that you will sometimes have a sinus leading down to the suture, but Kelly says these are now very rare, and, of course, are the result of infection. Phelps says there is less suppuration following the use of silver wire than of any other suture material of which he knows.

Silver wire is rendered aseptic more easily than any other suture material, and hence we should not often have infection. A very good way to treat it, is first to boil it thoroughly, then put it in pure carbolic acid over night, then place it in ninety-five per cent. alcohol, and when ready to use burn the alcohol off with an alcohol flame.

In the operation of hernia this same principle has given great satisfaction, Bassini's or Halstead's operation, except the continuous suture of silver wire, is used for the different layers of fascia. Phelps, the originator of this operation, also stitches the peritoneum with wire—this I think is unnecessary. Phelps has operated on two hundred and twenty-eight cases since 1892, has traced thirty of these personally, and requested all the hospitals in New York to report any case of relapse, and so far has not heard of a single failure. These operations, too, were for the most part, on relapsed cases—forty-nine were relapsed Bassini's, and the others were from the best surgeons of New York, mostly McBurney. The highest per cent. of permanent cures claimed for Bassini's operation is ninety-five, while many claim it to be as low as seventy-five.

Umbilical hernia has, until the method of silver wire sutures was introduced, given the least hope of success from radical cure. Dennis in his Surgery, edition of 1895, says that the relapses are very much greater than inguinal and femoral, and says further that the large number of ventral hernæ following simple laparotomy wounds, even in the hands of skillful surgeons, is evidence that it will be difficult to attain perfect success in the operative treatment of umbilical hernia. He also gives little hope of cures in ventral hernia.

Erichson, in his work of 1885, does not recommend any operation at all in either ventral or umbilical, unless strangulation should take place, and then he divides the stricture, closes the wound with sutures, leaving in a drainage tube; but adds, that, when the patient is not too fat, an attempt may be made to close the ring by sutures, but the strain upon the ring would usually be so great that this would probably fail.

Some other author that I fail to recall, has placed the per centage of relapses in radical operation for umbilical hernia at more than fifty per cent. Dr. Wm. B. Coley, who is more strongly opposed to non-absorbable material than any one I have read after, reports twelve relapses in umbilical and ventral hernia out of twenty-one cases traced, which is fifty-seven and one-seventh per cent.; while Taillens, writing in 1897, says that of the three varieties of hernia commonly encountered the umbilical is most readily cured.

Roux, in 1897, reported fourteen cases of umbilical hernia without a single relapse.

The mortality from operations for the radical cure of any and all forms of hernia, in this day of asepsis and perfected surgical technique is practically nil—the per cent. of cures by the use of the continuous silver wire suture bids fair to be one hundred. I therefore cannot do otherwise than recommend an operation for the radical cure of hernia in every case where age and health will permit, save and except infants under one year which can generally be cured by the recumbent posture.

Dacryocystitis.*

By Dr. W. W. Duson, Asheville, N. C.

Dacryocystitis, as its name implies, is an inflammation of the lachrymal sac, and is due, in a great majority of cases, to distension of this sac by tears and their consequent decomposition.

This distension is almost always the result of some obstruction in the lachrymal duct; either an acute congestion of the mucus membrane lining the canal due to some acute inflammation of the mucus membrane of the nasal cavity, or an engorgement of the plexus of veins which lie just behind the canal, from the same cause or to a true stricture somewhere along its lumen. The seat of the stricture or obstruction is more likely to be found either at the upper extremity, just where it enters the lachrymal sac, or at its lower extremity, in the anterior part of the nasal cavity just beneath the anterior end of the turbinated body.

The obstruction at the outlet is usually due to a shrinking and contracting of the mucous membrane which occurs in atrophic rhinitis or to ulceration of the nasal mucous

*Read before the Buncombe County Medical Society, April 15th, 1901.

membrane, or to pressure of a polypus or disease of the lower turbinate. Obstruction along the canal may be due to disease of the Antrum of Highmore, or to disease of the bones of the face,either from syphilis or other causes.

Sometimes the obstruction is caused by external violence over the course of the canal or by foreign bodies lodged in the canal. By far the commonest cause of true stricture of the lachrymal duct is injury done to the mucous membrane in the attempt to force its passage. In this way false passages have been made which have rendered futile all further attempts to open a passage through the stricture.

Dacryocystitis, strange as it may seem, rarely occurs as an extension of disease of the conjunctiva—the accompanying conjunctivitis, when present, is a result more often than a cause of this condition.

The most prominent symptom of this condition and the one which causes the patient to seek a physician, is the epiphora which accompanies it; the tears running over the lid and down upon the cheek and becoming especially troublesome when the patient is subjected to cold wind, smoke or other causes which increase the lachrymal secretion.

Inspection usually shows a slight swelling or bulging over the location of the lachrymal sac on the side of the affected eye and upon pressure being applied directly over it, the contents can be evacuated through tbe canaliculi into the eye, or in some cases it escapes by way of the duct into the nose.

There is usually some pus in the fluid contained within the sack, although in a great many cases there may be only mucus along with the tears.

There is usually some inflammation of the inner angle of the eye as shown by swelling of the caruncle with some conjunctivitis and blepharitis.

Sometimes the condition takes on more of an acute suppurative character, in which case there is much redness, swelling and pain in the affected region, resembling very much an erysipelatous inflammation. In fact, this condition is diagnosed erysipelas in the great majority of cases.

Then again the pus germs may break through the walls of the lachrymal sac and form an abscess in the connective tissue surrounding it. This condition is known as acute phlegmonous dacryocystitis and must be dealt with surgically.

With this, as in everything else, if we wish to be successful, the cause must be looked for and treated, otherwise all our methods of treatment will be of little permanent benefit. Any diseased condition of the mucous membrane of the nasal cavities must be relieved if possible, and all other conditions looked into and corrected that might have any bearing upon the disease.

In recent cases, when we have reason to believe that the obstruction causing the inflammation is due to swelling of the mucous membrane, we treat the condition by having the patient empty the sac at intervals by pressure upon it so as to prevent its distension and the decomposition of the tears. The sac should be washed out daily with an antiseptic solution—1 to 5,000 bichloride of mercury, or 3 per cent. solution of boracic acid—this is introduced into the sac through the canaliculus by means of an Anal syringe.

While the sac is distended with the antiseptic fluid it is well to make slight massage over it to cause the fluid to pass through the obstructed canal if possible. If these measures do not succeed, we must resort to the mechanical dilatation of the obstructed canal by the passage of probes.

In most cases it is preferable, in fact necessary, to slit open the canaliculus in order to facilitate the passage of the sounds. For this purpose we usually select the lower canaliculus, although some surgeons prefer the upper. A conical pointed sound is introduced into the punctum and passed on through the canal into the lachrymal sac for the purpose of dilating it for the passage of a Weber knife. The knife is then introduced with the cutting edge turned upwards and a little backwards and pushed forward until it comes in contact with the lachrymal bone, which forms the inner wall of the sac, the handle of the knife is then elevated and the canal is converted into an open groove. A Bowman's probe is then passed along this groove into the sac until it touches the inner wall when the disengaged end is raised to an almost perpendicular position or till the probe is in line with the groove between the cheek and the side of the nose, it is then slowly and gently pushed downward into the lachrymal canal. Great care must be exercised in this procedure, as the mucous membrane is usually swollen and tender and easily wounded, and damage may be done in making a false passage which cannot be repaired. We begin with the smaller size sounds and gradually pass on to the larger sizes.

Where it is convenient it is well to dilate the canal every other day or every day, until the duct is well opened and the epiphora has ceased, then the length of time between treatments can be extended.

The sound should be allowed to remain

in position after being passed through the duct for fifteen or twenty minutes. Should the parts be very sensitive we may inject a weak solution of cocaine into the sac before attempting to pass the sound.

In the suppurative type which is often accompanied by chill and some fever, it is wall to give a saline cathartic and make local applications over the inflamed area.

As long as the suppuration is confined to the sac, we can hope for a relief of the acute symptoms by local and milder measures, but whenever it assumes the phlegmonous form these measures are useless and warm poultices followed by an incision of its most prominent part with thorough irrigation is the best we can do.

In the way of local astringent applications nothing has proved so beneficial in my hands as the liquor plumbi subacetatis dilutum.

A thin layer of cotton saturated with this solution is kept in contact with the inflamed part and its action in relieving the congestion and inflammation is almost specific.

The majority of the cases of the phlegmonous type in the poorer class of patients are not seen by the doctor until the abscess has ruptured and the inflammation has subsided. Tney usually consult the physician on account of the fistula which remains. These fistulæ close up as a rule, without any direct treatment as soon as the obstruction in the duct is removed and drainage is restored to the sac.

Should they remain open, it is well to freshen the edges and apply a pressure bandage which is usually successful in closing them.

In those cases where from faulty surgical treatment or otherwise, the duct remains impervious, and the acute inflammation and abscess recur, the lachrymal sac may be either extirpated, which consists in the entire removal of the lining mucous membrane, or obliterated by the application of Vienna paste or the actual cautery.

The length of time necessary to continue treatment in these cases may run all the way from six weeks to as many months, in fact, some cases due to old cicatricial stricture of the duct require treatment, at intervals, for years to prevent relapses from recurring.

DISCUSSION.

Dr. Tennent.—I think the doctor's paper very good, but I believe there are several points I could enlarge upon slightly. In regard to its frequency, it is the most frequent trouble the doctor has to deal with. It is grave by reason of its troublesome features and the difficulty to effect a final cure in every case. I find on looking over my case books that seven-tenths of 1 per cent. of all cases I have treated are dacryocystitis, and a small proportion of these have arisen from causes which the doctor did not specify, viz., influenza or acute coryza occurring in patients who are afflicted with chronic rhinitis. This, of course, is not nearly so common a cause as the gradual obstruction of the nasal duct which the doctor referred to. Still, especially in these days when influenza is so common, it causes a large number of cases. In this class of cases the treatment varies slightly from the treatment he has outlined. For instance, you will effect a great many cures without the final resort to probing, for the simple reason that if it is properly treated in the beginning the obstruction will be obviated. The attack comes on as he has stated.

In the last few months I have seen an article by a Chicago physician who advises a small syringe, very similar to an ordinary pipette, the only difference being that it is made of hard rubber or metal, and has a very fine point. The muzzle is slightly larger than the opening, and in order to use it the caniculus has to be dilated, slit up one-half or one-third the way to the tear sac. The important difference is that it has a small opening on the side of the rubber bulb which can be closed with the finger, so that you simply introduce the syringe with the bulb in its normal condition, and then press the bulb and expel the air through this little opening, place your finger over the opening and allow it to expand and draw the pus out. The next step is to discharge the pus out of the syringe and fill the syringe with some antiseptic solution, wash it out thoroughly and withdraw this, and fill the tear sac with a solution of protargol, from 5 to 20 per cent. Of course, this treatment can be followed out in any case, but in the beginning of the attack it strikes me it would be a very rational treatment. However, the acute cases very often merge in the chronic, no matter how they have been treated.

Another point the doctor did not explain fully is the size probe he uses. There has been a great deal of discussion on this point and almost every surgeon has his own idea. My experience has been very limited, but I use the medium sizes, especially if the case is mild. The ordinary method of using the probe is carried through. I use Theobold's probe with the pointed end and introduce a No. 7 probe. That is a little less than two milimeters in diameter, and if no stubborn obstruction is found in the nasal portion of the duct it leads me to believe that there is

no stricture of the periosteal or osseous formation, and I arrive at the conclusion that it will not be necessary to carry out Theobold's complete treatment. He advises the use of probes up to 16. However, if the strictures are so dense as to lead me to believe that they are osseous, or even thickened periosteum, I think it best to proceed by increasing one number each time, each being one-fourth milimeter larger, and go up either to number 13 or 16. We probably come to a time before No. 16 is reached when we find it impossible to increase the number at each sitting. The Bowman's probes, which were in use before Theobold's stopped at about Theobold's No. 7 or 8. Theobold arrived at this conclusion and based his treatment on the measurement of a large number of skulls. I don't know whether they were examined in the dry state or not, but he says in his measurement the average diameter of the duct was 4.36-100 milimetres. The largest duct in the number he examined was seven milimetres. He does not state what the smallest was.

In the last year or two I have treated one or two cases of obstruction in which there was no dacryocystitis present and there had never been any symptoms of it, and I hope I have averted the dacryocystitis. In these cases the patients applied simply for relief of the epiphora, and I found the obstructions existing. I have never had any experience with any other lines of treatment. Of course there are a great many.

Dr. McGilvra.—These gentlemen have covered very completely the literature of the subject, with which I differ entirely. If any man living ever succeeded in getting satisfactory result by the dilation of the stricture I would be willing to give up my theory on the subject. If we see them soon enough nine cases out of ten will yield to the simplest thing, but we generally get them when there is a bad inflammation set up, and the simplest way is to pass the probe through the nose and dilate, and in a few days you will cure the majority of cases, but the old method of dilating the stricture with a gradually increasing probe is a horrible thing. I do not have much trouble with those things nowadays. The nasal obstruction must be cured first of all. We can generally get results by allaying the inflammation, but we must remove the obstruction there. As to the ingenious method the doctor stated, I do not know whether any man with a syringe could not do that just as well. I wash the sac out, and you will not need any syringe to suck it in, because it will naturally flow in a backward direction if it cannot go the other way. I have had a good many of those cases to treat. Under cocaine there is of course pain, because you cannot pass the cocaine all the way down. When you get through that stricture you are getting pretty near home, but after the first time you can generally pass the cocaine perfectly and the operation is not painful. As I said, that is not authority, but it is my practice and it suits me all right.

Dr. Ambler.—In reply to Dr. Tennent I would say that Dr. Duson referred to nasal catarrh as the cause of cases. I was very much struck a few months ago with an article I saw on the treatment of this disease, which was entirely new to me. It was presented by a physician in Texas, in the Journal of the American Medical Association. He stated that he had had a great many patients among the cowboys and other men living upon the plains who came to him in this condition, and it was impossible for them to remain with him and he could not carry out routine treatment, so in place of passing a probe he passed a thread and probe through the nasal duct into the nose, drew the end of the thread into the nose, drew the probe back, left the thread in place and pulled the thread far enough into the nose so that he could tie it over the face. He could tie the thread into a hard knot and show the patient how, by pulling on the thread, he could pull the knot down through the nasal duct into the nose. I would imagine it would not be an antiseptic method of cleaning out the duct, but still the physician claimed that he had obtained wonderful results by this method. The patient would keep the thread in the face and occasionally turn the thread around until the knot came down. Following this article some physician in Maine took the matter up, and stated that for 40 years he had been using this procedure, but he had been putting the thread through the duct and clamping a shot above and below in the nose, and that once a week he would remove one of the shot, tie a new piece of thread to that in place and pull the new piece into position.

I do not exactly agree with Dr. McGilvra in the use of the knife in stricture cases. It has been my experience that when you cut a stricture with a knife that you get as much stricture from the use of the knife as you had in the first place. You certrinly cannot get any improvement where the knife has cut except by cicatrix, and the cicatrix which forms results in about the same amount of obstruction as it did before, unless you keep applying the probes for about the same length of time you would without the knife then we have same result

back again; it simply amounts to this, if you pass the knife that is all right, and you get in a much larger probe earlier, but I don't believe you gain in time of treatment.

Dr. Meriwether.—I have used 2% of protargol and it is a pretty warm solution. It is very seldom you can find a patient who can stand ½% or 1%, and it seems to me 20% solution would raise a man's head off.

Dr. Tennent.—I have never used the protargol in the 20% solution, but I simply said it was in that statement I read. I have never used it in the tear sac at all. I did not mean to criticise Dr. Duson's paper. These cases do not arise in the usual way. The usual way is to arise in stricture from chronic nasal catarrh. In these cases the dacryocycystitis is from acute catarrh. Dr. McGilvra probably missed one point. The object of making the syringe in this way was simply to wash out the tear sac with the least violence possible in acute cases where you attempt to abort the trouble before it merges into chronic form. It is almost impossible to use the Anel's syringe without some slight degree of force, and in this syringe there is absolutely no force. It is merely a method of symplifying the procedure in a slight degree.

The Treatment of Alcoholism.*

By H. L. Baird, M.D., Asheville, N. C.

The subject Mr. President and gentlemen, is one which I suppose no gentleman present would say he was specially interested in, or that he makes a specialty of treating the same, and that is my excuse for bringing before you such an uninteresting topic. However loath we may feel to soil our hands or waste our valuable time in an attempt to treat a most loathsome condition, held by many to be purely a disease of morals, and, therefore, to be dealt with only by the clergy, or the courts of justice, does not alter the fact that the time has not yet, and probably never will, come when most of the inebriates will not fall naturally into the hands of the family physician for treatment. The policeman's handcuffs, the hospital's strait jacket, the quiet restfulness of the magnificent private asylum, the hypodermic shots of the so-called specific chloride of gold cure, and the prayers of the priest have each accomplished practically the same thing—*nothing*—and the whole problem falls back upon the family physician for solution.

*Read before the Buncombe County Medical Society.

In looking up the statistics upon the subject a few days ago, I was surprised to find that more than sixty per cent. of the so-called cases wrought in the various institutions of the country in the past ten years, have either died drunkards or gone back to their former bad habits, and that sooner or later probably ninety per cent. go the same way, which to me seems a very poor showing for any kind of treatment thus far instituted. Here the question naturally arises as to whether alcoholism is a mental or physical disease or purely a depraved moral condition and, therefore, not amenable to medicinal treatment.

To be frank with you, gentlemen, I am not prepared to answer this question satisfactorily to myself, though I hope some one present will be able to do so before the evening is over. I do know, however, that the inebriate, as we ordinarily meet him, is the subject of a number of physical ailments which if recognized and treated properly, will certainly result in a betterment of the unfortunate's condition, if not a cure of alcoholic cravings. If our patient is a degenerate from birth and doomed to die a drunkard, I suppose no line of treatment could result in much good to him. But on the other hand, if he be a man of good physique, whose liver and kidneys have not been seriously damaged by previous excesses, and whose will is not totally paralyzed, why should we not be able to relieve his constipated bowels, operate upon his piles, tone up his nervous system, and by judicious suggestions, thrown in at the proper moment, gradually lead him into good citizenship, and by this means give to him more self-respect, and a better state of mental hygiene, and consequently a better physical condition, which is likely to result in keeping off the craving for alcohol.

Preventive treatment, if such a thing could be imagined, would be the ideal thing for every case, but since we must have at least one attack in every patient before he can be considered the subject of alcoholism, unless there really is such a thing as hereditary alcoholic craving—this would be practically impossible. But whether there is anything in heredity or not, the offspring of inebriate parents will bear watching and usually be found to have very much the same cravings as their parents, though this is certainly not so in all cases. The question as to whether the appetite for alcoholics may be prevented in the offspring of inebriate parents is one I would like to have discussed fully here to-night. If it can be done at all, will it not have to be accomplished largely through the influence of medicines, or must it come wholly through

the influence of something brought to bear upon the will and moral sense? The forms in which we meet alcoholism differ widely and demand somewhat different treatment. Acute alcoholic mania is one of the most frequent forms with which we meet, and should be treated as follows: The thing of first importance is to secure the services of a kind but firm nurse, who above all things will never use any harsh means in controling the patient, The nurse secured, and a comfortable but very simply furnished room for the patient, the indications now are to secure sound, restful sleep and proper nourishment while the stimulant is being withdrawn. The liver and bowels should receive our next attention—and to relieve the constipation and start up hepatic activity, nothing is better than a large dose, eight to twelve grains of calomel, followed by a saline to wash out all material found in the alimentary tract. To procure the necessary sleep, morphine will usually have to be resorted to, but should be withdrawn at the earliest possible moment, and have substituted for it hyoscyamus, cannabis indica, chloral hydrate or bromide of potassium, all of which must be given with great care except the bromide of potassium, which must be given in very large doses if we expect to get any benefits from it. The coal tar derivatives also have a limited field of usefulness and may be resorted to after other and better remedies fail.

As an antidote to the alcohol nothing has stood the test as well as nitrate of strychnine, and if pushed carefully will rarely fail to accomplish its work in a few days. It should not be long continued after the spree is over.

The use of emetics, such as ipecac and appomorphine, to produce a disgust for alcohol, is unscientific, uncalled for and often extremely dangerous to the life of the patient. Such remedies should never be spoken of except in terms of strongest condemnation.

Capsicum will be found useful in toning up the stomach and relieving brain irritability. In many cases it will be found that whiskey can be withdrawn without any great detriment to the patient, but when it is found that this can not be done, the next best thing is to taper off on egg-nogs or egg-flip, which are very nourishing and at the same time furnish alcohol enough to satisfy the patient. As the patient merges from the acute symptoms of his spree, and convalescence sets in suggestions that are calculated to produce a profound impression upon the mind, become in order, and often result in keeping off future attacks.

The diet throughout the trouble should consist mainly of eggs, milk and broths. Frequent bathing is very beneficial, the shower or Turkish baths are probably the best, but not always convenient, though they can usually be reached with a little trouble in towns much smaller that this. It now becomes necessary to look after the patient's general condition for several weeks to come. The liver, bowels, stomach, and kidneys should each receive our special attention. If hemorrhoids exist, they should be operated upon in such a manner as to make the deepest possible impression upon the mind of the patient.

Bitter tonics are usually beneficial, but should not be given in the form of tincture, as they are likely to create a desire for alcohol. Nucis vom, quassia and cinchona are probably the most valuable lines.

The treatment of delirium tremens or the "horrors" of the subject of chronic alcoholism, who happens to overstep his capacity is much the same as that already suggested, but is much less satisfactory in results. The proper alimentation, and a relief of the often times very obstinate insomnia are the things to be desired, but we will often find ourselves taxed to find a remedy that will succeed in accomplishing either.

By far the largest number of cases of alcoholism we meet will be among a class of people who do not even suspect that they have any such habit, and consequently must not be told what their troubles are, but must be treated for something else, at the same time withdrawing the alcohol with the distinct understanding with the patient that is aggravating some other real or imaginary disease.

Many of the cases of tuberculosis, coming to this place, who are treating themselves, and at the same time laboring under the mistaken idea that alcohol is a specific for tuberculosis, will be found to be at least mild subjects of chronic alcoholism. Here it is that we will meet with chronic catarrhal gastritis in its most aggravated type, and here too is where we will experience much difficulty in replacing the stimulant, and at the same time toning up the stomach of a person whose general health is so poor as that of tubercular persons usually is. Do not understand me to be opposed to whiskey in the treatment of tuberculosis, for I believe it to be one of the very best remedies we have when used in suitable cases, but think it is often forced upon stomachs that simply cannot tolerate it without injury to the patient. Such persons will usually be much benefited by withdrawing the whiskey and substituting nitrate of strychnine hypodermically for a

few days, followed by large doses of hypophosphites, together with codeine, one half grain at night to control cough, which is often the only excuse given by patients for taking large amounts of "rock rye and glycerine" at bed time, which explains his being the subject of alcoholism. The diet in these cases should receive our special attention. It should be liberal and of a highly nutritious character, consisting mainly of milk, eggs, broths, rare beef, poultry, quail, or other wild game. To my mind the mistaken idea that whiskey is a specific for tuberculosis has unquestionably sent many a poor unfortunate to a premature grave, and on the other hand, many a foolish temperance crank, whose stomach would have tolerated and appreciated a little good whiskey, has gone steadily down for want of this stimulant.

In conclusion, gentlemen, it is needless for me to say that you are the individuals who are brought directly in contact with this monster, and to whom the public is looking and appealing for a remedy. Let us give the matter more serious thought, and that the results of our treatment of inebriates will be more satisfactory to us, and we be elevated in the estimation of the public in general, is my sincere belief.

DISCUSSION.

Dr. Mellender.—It seems to me that the problem the essayist brings up for solution would have been simplified if he had considered the subject under two heads. Alcoholics should be divided into continuous and periodical drinkers. A continuous drinker may be cured whether you send him to a Keely cure or an inebriate asylum, or whether you lodge him in jail. He has a habit, and though he cannot, as a rule, extricate himself single handed on account of the great depression that follows the attempt to "break off," nevertheless, a few days of forcible restraint gives the cerebral vessels time to recover their normal condition—the nerve centres are properly nourished again and the man is himself. He may relapse, but the fault is his own.

The case is different with the periodical drinker. He has a disease, and members of this class have my sympathy. It is a neurosis, and the aberation is transmitted by inheritance. The taste for whiskey is not inherited; the progeny of alcoholics inherit some weakness of the nervous system and in men this shows itself frequently in easily acquiring the drink habit. Sometimes it takes the form of neurasthenia, and in females it may take the form of hysteria. No form of treatment will restore a periodical drinker. Your home treatment, Keely cure, confinement in prison, moral suasion, hypnotic influences—every thing fails on him.

The spell come on with an *awe* frequently. The spirit moves him greatly and the explosion comes. The attacks resemble epilepsy, and it is just as difficult to effect a cure in one as the other.

I endorse the writer's medicinal treatment. Nitrate of strychnine, hypodermically, helps all classes of alcoholics, and it is the sheet anchor in tiding them over a *crisis* when threatened with "horrors" after the whiskey is withdrawn.

I have some experience with tincture capsicum, a remedy recommended by most authorities for quieting the stomach and stimulating the cerebral vessels after alcohol is withdrawn, I have always been disappointed with it. In my hands it has usually had the effect of adding to the stomach derangement, causing vomiting, etc., thus depressing instead of stimulating the vascular system and nerve centres.

Dr. Peavy.—I would like to endorse what the doctor has said in regard to the drink habit being in the nature of a neurosis. In no class of diseases is the element of heredity so marked as in nervous troubles, and this particular disease is just as much neurotic as any other form of nervous derangement. It is one of the class of troubles in the treatment of which mental depressions go along way. It is a very important point to keep in pretty close contact with the patient. Your personal hold on him will amount to a good deal in keeping him from breaking down. My personal belief is that it is not so much the direct and ligitimate effect of the treatment that does the work as the patient's confidence in the treatment and in the physician personally. In a few cases I have used daily applications of static electricity. It seemed in those cases that it was a good thing to get the patient in the *habit* of taking the electricity daily, if you could get him to believe that it supplied the need for whiskey, being in itself not destructive but tonic to the nervous system. Perhaps it was not better than anything else that would bring us in daily contact with the patient and inspire him with an equal amount of confidence. I believe that the effect of the Keely treatment is suggestive, Its effects are produced through the patient's psychic nature rather than his physical organism. There is no doubt that during its greatest popularity it did make some remarkable cures, temporary though they were, even though it was quackery I would not tell a patient that static electricity was a cure-all, but I would tell him it was a valuable nerve

tonic, and that he could sleep better and it would have a tendency to restore his nerve tone, which is true.

Dr. Watson.—I do not know of any treatment for alcohol except to quit drinking. I have tried all kinds of treatments, and I find that is the best thing you can suggest. I do not believe there is any help outside of that. I have treated men for years in various ways and done no good. They got on regular sprees, but finally those same patients, without any reason that I could find, would quit. They simply decided that they were killing themselves and gave up the habit and never returned to it. That is the only advice they got, simply to quit drinking, and they quit. I believe, however, it is psychological.

Dr. Reynolds.—For my part I believe the way the twig is bent the tree is inclined, and no doubt we have various alcoholic inebriates both from hereditary tendency and voluntary inebriates the great majority being of the voluntary class. A great deal of alcoholism is due to socialism. As for the treatment, we can relieve the periodical drinkers for a time and put them on a safe, firm foundation, and outside of the class of hereditary inebriates we can cure them,and I believe it is pure "cussedness" on the part of the individual when he goes back and takes a drink. It is a voluntary act, and he should be condemned more that pittied. As far as the Keely insitute is concerned, my experience has been that they take them there and make them abhor the sight of alcohol by giving them emetics, and then build up their constitution so that they can do without it, and they come back here and go back to their old associates and take a drink, and become worse than they were prior to that time, and they go back to Keely institute and come home again, and get their constitution so shattered in this way that they die.

Dr. Ambler.—I believe it is a fact that America presents more real inebriates than almost any other country, (in proportion to proportion) and I believe one reason for that is sociability, The brain of a person who habitualy gets drunk becomes diseased. The main thing to do in a great many of our cases is to impress upon the patient one point, and that is, *do not buy liquor for anybody else.* I am not referring to the man who is an absolute sot, but to the business man who will occasionally get drunk, and who is otherwise respectable for weeks at a time. If you can make that man faithfully promise that he will not buy liquor for anybody else he will not get drunk. There are very few good citizens who will buy enough liquor to get absolutely drunk. I believe that our cursed practice in this country of meeting our friends and taking a drink together is the cause of most of the drunkenness. I believe in the German way, of going in and ordering your own drink and paying for it.

Dr. Burroughs.—I have been much interested in the paper, but I wish to state that the largest and best brain workers of this country are men who are unconsciously inebriates. They are men who are accustomed to taking about three drinks of whiskey a day. They think they are doing it just as a man would take a cigar, but let them do without it and they will find they are a slave to it, and it will be a struggle to throw it aside. Let a man take it for a year or two, and when he undertakes to stop it he will find there is a demand in the system for it, and he has really unconsciously had alcoholism and he will not be able to quit that whiskey as easily as he can talk about it, and if he is a man of any nerve power it will frighten him, and he will probably stop it, but in all probability he will go back to it, and when he wants to stop it again he will find it has hold of him ans it will take time to get over it. There had been one thing omitted from the discussion, and that is that alcoholism is a cure for some diseases. It has been handed down to us from our forefathers, and to-day there is nothing in medical therapeutics that will compare in efficiency with alcohol in the treatment of the bites of poisonous serpents and the stings of poisonous insects.

Dr. Woodcock.—I think Dr. Ambler is entirely correct in his statement that social drinking is responsible for a great many drinkers. I wish to take issue with Dr. Reynolds in his statement that voluntary drinkers are largely in the majority. In my opinion hereditary drinkers are decidedly in the majority. I knew one man who was a profound drunkard after taking his third drink of whiskey. I have known other men to drink for 10 or 15 years who were no drunker than the other man after taking his third drink. That man came to this town and forged my name to get drinks of whiskey, and I spoke to him about it, and he cried and said I could not understand what an extreme longing he had for liquor. These things are inherited. One man can make a drunkard of himself if he persists in it, but he is no more a drunkard than the other man is after getting on two or three sprees. I think the treatment mentioned is all right. I think there is something in it, but I think appealing to a man's moral nature and to his responsibilities and such as that aids very largely the nitrate of strychnine and chlorate of gold.

Dr. Glenn.—I think there are just as many kinds of drunkards in the world as there are kinds of whiskey, and just as mean drunkards as there is mean whiskey. I think it is a great mistake to say that it is pure cussedness that many men drink. There was a man in my office this afternoon who is what I call a profound drunkard. His brothers are all drunkards and his father before him was. I think the greatest tendency in this country for a man to take a drink is the social feature, but I would rather encourage the social feature than encourage the German feature of selfishness. If a man is going to take a drink and he can take his whiskey to his room and there take it, he will get so he will take it every time he goes to his room, like you take a drink of water when you go to your office. He will take it every time he goes in and when he goes out, but he will not take as many drinks where the public can see him, or because he does not meet his friends every time he goes about his own business. I think it is a great mistake for a man to take a drink by himself. I belive that is why so many women are tipplers that we do not know about. In the cities they can get their whiskey, and oftentimes you are called to treat a woman, when probably her friends do not know she is drinking.

Dr. Ambler.—What per cent. of the men you see on the street drunk have taken their drinks in private and what per cent. have taken them at the bars? Where do they get drunk?

Dr. Glenn.—The people who get intoxicated are those who go into the bar. I know two or three men in town I do not bevieve there is a man in town will take a drink with, and yet oftentimes you see them drunk. The greatest thing I have to contend with in treating acute drunkards is the man who has delirium-tremens. I treated a bar-tender here in town, and the owner of the saloon was sitting all day at the end of the bar watching the man, and never saw him take a drink, and yet the man died of delirium-tremens. Nothing I knew would save the man's life. He came pretty near dying a time or two before that. I believe in Dr. Watson's treatment of giving him a tonic and telling him to quit.

Dr. Dunn.—It seems to me that one of the most important therapeutic methods has been only lightly touched upon, and that is restraint. Take the chronic tippler who is accustomed to taking his dram regularly, and in the course of time increases the size and becomes a chronic alcoholic. It is easy to tell him to quit, but it is not easy for him to quit, and the majority of them cannot. Many of them would gladly do it if they could. As a result of the influence of the alcohol on the nervous system they have not the will power they had when they began to be tipplers. While nitrate of strychnine will help in those cases it will not give the will power. Many of them must have a will supplied by restraint of some kind, either by an institution or by a companion who will be inseparable and who will substitute his will for theirs when their will is weak, and in my opinion this restraint is for the chronic alcoholic the sine qua non.

Dr. Jordan.—I remember a case at one of Loomis' clinics where he was demonstrating a large liver. The man who appeared was asked if he drank, and he said never. He was a washer of whiskey barrels, that is, he steamed the return barrels out. He was at this work all day, and had a liver which was as much typical of the alcoholic liver could be.

Dr. Weaver.—It seems to me that the gist of the question has not been rightly touched upon. Is alcoholism a habit or a disease? To my mind it is disease of the tissues of the brain, and unless you fall upon some plan by which you can alter the tissues of the cerebrum you do not cure the disease. The whole of the system, especially the brain, is saturated with the poison, which has to be eliminated from the system if you expect to do good, in the manner in which Dr. Millender portrayed systematic treatment and restraint. But something further has to be added, and that is the will of somebody else, and that is where the institutional treatment is the *sine qua non*, and that is to my mind the only way to treat. The Keely cure has done a great many things. I learned some things about the Keely cure in William Hammond's institution in Washington, and I know it did do good in some instances. While part of it was suggestive, other parts were eminently therapeutic, and the various prescriptions and formula are scientific. I am not defending Keely, but the manner in which it was done showed that many cases were for the time cured. The great thing was to eliminate the poison from the system and then to begin to build up the nervous system. I believe the only way to cure the disease is in an institution by restraint and by regular methodical treatment, such as you would have in any other sanitarium.

Dr. Baird-—I am very glad that the paper has brought out the views of so many, and I may say that I am not surprised that there are quite a number of different views on this subject of what alcoholism is and as to what is the proper treatment. The paper

was not intended to give anything except the treatment from the standpoint of a general practitioner. I think institutional treatment is the best in many cases, but the I have attempted to bring out is the best way of managing alcoholics as we meet them in our every day work, the men who must be treated by the family physician. As I said, there seems to be a number of different views on the subject of what alcoholism is. Some said it was pure cussedness, some said it was socialism, and others take the ground that it is purely a neurosis, which it must be in some cases, yet that does not solve the problem. We are just as far from a correct solution of the situation as we were before. I am sorry that some one has not been able to offer some suggestion in the way of treatment superior to anything which we have had. We have all fallen into the habit of treating along the lines suggested in the paper, and we have all met with a very large percentage of failures in the treatment of our cases.

Surgical Treatment of Pulmonary Gangrene.

Herczel (Wien. med. Presse, December 16th and 23rd, 1900) successfully treated the following cases by operation: A man, aged 55, was seized in September, 1899, with what was from the history evidently croupous pneumonia. Three weeks later the sputum became brown, the strength failed, and pyrexia and sweats were present. There was great emaciation. The right supraclavicular and infraclavicular fossæ retracted, and did not move with respiration. There was absolute dullness above the third right rib in front, and in the right axilla, and impaired resonance over the right supraspinous fossa, with bronchial breathing and moist crepitations. About a pint of chocolate-brown or greenish-brown stinking fluid was expectorated daily, which contained fat crystals, elastic fibres, streptococci, and other cocci, but no tubercle bacilli. The general condition seemed desperate. On October 27th a semilunar incision, extending from the sterno-clavicular joint to the coracoid process, was made under chloroform. The pectorales major and minor were divided, and from 4 to 4 3-4 inches of the second and third ribs were resected. The costal pleura was thickened and discolored. An exploratory syringe withdrew brown pus at a depth of 1 1 5 inch. A vertical incision, about 2 inches long, was then made through the adherent layers of pleura and let out a quantity of fœtid pus. On examination with the finger a cavity was found about the size of a clenched fist, which extended to the apex above, and was continued below, by a passage large enough to admit the finger, behind the fourth rib. After removing the finger pulmonary sequestrum was extruded by coughing. Though the sputum became inodorous, there was frequently pyrexia, and the cavity showed little signs of closing. On November 27th, therefore, the fourth rib was resected under Schleich's infiltration anæsthesia, and the vertical incision in the lung was prolonged downwards with Paquelin's knife for about 1 1-2 inch, so that free drainage from the lower pocket was secured. The cavity then rapidly granulated, and now but a small sinus remains, with scarcely any discharge, and expectoration is almost absent. About a quarter of the total number of recorded operations on the lung have been for gangrene, and a sixth for pulmonary abscess. Of the 91 operations for gangrene 60, or 61 per cent. were successful. Expectant treatment for pulmonary gangrene, which is practically always fatal if left to itself, is therefore no longer justifiable; for abscesses, though evacuation may take place through a bronchus operation is also the best treatment. Gangrene following croupous pneumonia gives the best prognosis, that following influenza is more fatal, and the most fatal of all is that due to perforation of the œsophagus. In gangrene the use of an exploring needle before the pleura is freely exposed is unjustifiable, since unless the viscera and parietal layers of the pleura are adherent, putrid pleurisy may follow, or a layer of healthy lung tissue in front of the cavity may be infected. There is also danger of wounding a larger pulmonary vessel. Free removal of ribs is always necessary. If the layers of the pleura are adherent, which is evidenced by retraction of the intercostal spaces during inspiration, and by a fine needle not moving with respiration when inserted into the lung, the incision with the cautery may be made at once. If, however, they are not adherent, the two layers may be sutured together so that the pleural cavity is shut off before the incision into the gangrenous lung is made.—*British Medical Journal.*

Fever.*

In our southland there are fevers of all sorts, the most common being malarial or periodical, differing from the continued fevers in this, that it comes, stays awhile and goes off with a sweat. All of the fevers come on with a chill of greater or less intensity, and the fever comes on the same way in all, but does not go off with a

*Benjamin H. Brodnax. M. D., Arodnax, La.

sweat. It is malarial fever that seems to puzzle the leaders in medicine the most as to cause; whether bad air, or bad water, or the four-spotted mosquito, or all of them. There seems to be more unanimity of feeling as the others; being all of the deemed specific fevers, conveyed by infection. In all of the fevers more or less of antiseptics and antpyretics are used as reducers of temperature and to destroy infecting material in the system. Quinine is largely used by some not only to reduce fever, but as a test to the character of the fever. It is quite common when there is doubt whether a fever is malarial or typhoid to give full doses of quinine. To my mind, this looks like folly, as it is well known that when a well person takes a full dose of quinine it raises the temperature and blood force. Not only then, but when the drug fails to abort a chill the fever following is more intense; also, when quinine is given during a malarial fever exaggerates it, making it hotter and last longer. This is the case according to my experience, in all the continued fevers during the last thirty odd years. Long ago I substituted chloroform to abort a chill and used chlorotorm water as a drink to reduce fever and in malaria to bring on a sweat.

Since 1890 I have used acetanilid almost entirely, partly on account of its cheapness and also for its good effect. In a case of continued fever, recently, I used a new remedy, "Salo-Sedatus," that works pleasantly and to the good of the patient. In case of a child with enteric fever resembling typhoid I used it in two and three-grain doses, pro-re-nata, with effect of quieting the nerves, reducing the temperature, and, I believe, aborting the disease, as the child was free of fever by the ninth day and up about the house by the fourteenth. Also, it had every symptom of typhoid, even to the yellow color of the palms of hands and soles of the feet. It used to be taught us that typhoid fever must run twenty-one days at least. Years ago I had cases that ran twenty.one and twenty-six days before abatement; but within the last ten years I have either not had a case of typhoid or, somehow, it got out of gear and ceased to run on. How much the coal-tar derivatives have had to do with this change I cannot say, but I have used them in all and every case of continued and periodic fever that has come under my care.

It is broadly stated that death has been caused by small doses of two and three grains of acetanilid. I seldom give to children less than two grains and to adults eight to ten grains, I have yet to see the first dangerous symptom to follow its use True, a little cyanosis followed in a very few cases, but by a small amount of coffee, whiskey, or other stimulant corrected it in a few minutes. At the same time, I have known of seven deaths inside of a week in one locality from hematuria brought on by quinine. The pleasant compounds will take the place of acetanilid very considerably in the future. The Salo-Sedatus salt being one of them, as there results no cyanosis from its use, to frighten those who use quinine to excess.

Amputation of Both Feet under Cocaine Anæsthesia.

Aug. Behle (Philad. Med. Journ., February 23d, 1901) records a case of injury to both feet resulting from a fall from horseback, and which was followed by frostbite and some crushing of the tissues, and the development of moist gangrene locally. By careful treatment, a line of demarcation was established and well shown above the feet, and amputation was necessitated. Owing to the debility of the patient and the fear of shock and depression from general anesthesia, the injection of 15 minims of a sterile 2 per cent, solution of cocaine was carried out into the lumbar subarachnoid space. In two minutes a profound anesthesia of the lower limbs followed. Both feet were amputated, and the patient made a steady recovery, none of the disagreeable symptoms sometimes observed after cocaine injection, such as nausea, vomiting, and severe headache, being observed. The rise of temperature after the operation was slight, being only slightly above 99 deg. F. The stumps healed by first intention, and on the fifteenth day after operation the patient was discharged, the stumps being then capable of being handled with very little pain.—*British Medical Journal.*

Poverty.

Thou enemy of all things clean,
Uplifting, fragrant—and of Art!
Thou friend of all things base and mean,
Thou cancer of the human heart;
Civilization's bitter foe;
The only thing that nations dread—
When Christ comes once again I know,
But not till then thou shalt be dead.
—McCann.

Inflammation of the neck of the bladder is greatly alleviated by the insertion of a vaginal tampon, renewed each 12 hours, covered with an ointment of belladonna in wool fat, 30 grains to the ounce.

THE

Charlotte Medical Journal.

Editorial Department.

E. C. REGISTER, M. D. J. C. MONTGOMERY, M D

Editors and Publishers.

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AMERICAN MEDICINE.

This is the name of Dr. Gould's new Journal. It is published in Philadelphia and will appear weekly. The medical profession is familiar with many of the factors that first suggested the establishment of this periodical. It may be unfair and unjust, possibly discourteous to our distinguished friend for us to entertain even the thought that spiteful motives had a great deal to do with the launching of this new magazine. Many must certainly infer this after reading all the circumstances that led to the removal of Dr. Gould from the editorial management of the Philadelphia Medical Journal. Just after he was removed and while he was in this bitter, soured mood he conceived the idea of this new enterprise. The results may be everything he desires, we hope they will, but business adventures originating this way usually come to grief. While we entertain these harmless and friendly predictions, no one will be more delighted to see the new Journal prosper than we will. Its editor has many friends and many admirers, he is a strong man in many respects, and has traits that might make him rank among the ablest editors in the medical world and we hope yet to see him outlive the excusable prejudice that now exists against him personally and his efforts to give the American physicians a great Journal. I use the phrase "excusable prejudice," because the medical press has many good reasons for not admiring Dr. Gould. It has been several years ago, yet we remember it well, when he as director of the Philadelphia Medical Journal, declared that he did not want any exchanges, that they would be in his way and that the ideas of the medical editors and their friends and contributors, all over the world, would be of no use to him and his associates. A policy so impracticable, so unwise and so impolitic would have wrecked the editorial career of the strongest kind of a man, and we don't hesitate to say that the effects of this long ago declaration had something to do with Dr. Gould's inability to retain his position as editor of that Journal. Some people think that they are too wise even to learn from a school of experience. We hope this will be an exception. Copies of the two first editions of his Journal have been received. It is not extravagant for us to declare that it is the best edited, the largest and most magnificently printed Journal for its age we have ever seen. It is, indeed, a difficult thing to make the first editions of a medical Journal as perfect as this one of Dr. Gould's. The first copies look well, and read well, even when compared with the largest and best established weeklies that are published in the world. He and his associates deserve our congratulations, and we now offer them.

A WORD IN TIME.

In ye olden times it was common, it is claimed, to meet a physician who was able to detect the slightest deviation from health by means of his instruments of precision; namely, the eye, ear and touch, but in this day and age under our new modes of procedure if we are not careful the ways of our fathers which were so accurate and that are so essential even now to the broad-minded physician, may become a lost art, for we cannot help but acknowledge in spite of the fact that our science is a very progressive one that unless we practice day by day to use all our powers of observation, studying the symptoms and signs of disease we cannot expect to retain our skill. Auscultation, palpation, percussion and inspection, are all necessary to the skillful physician. We not only need them to assist us in reaching a diagnosis, but we discover in applying our therapeutic measures they are all very essential. We are all anxious to become familiar with the most direct medication in order to reap the reward that comes from such a practice, the days of shot-gun medication are past and we are now entering into an era in history where a more accurate and exact medication is demanded. The American physician is noted for his powers of discovering the value of new things in medicine and applying them, but he is also liable to be imposed upon by dishonest people who hold financial gain above the progress of pure science, so it becomes the duty of the physician to be well acquainted with all the medicines he uses and see to it that he is not deceived by those who care for only the financial gain. Of all the different classes

of professional men I believe I state the truth when I say that no other class does as much for the laity as the physician and still there is no other class that is imposed upon more than the medical profession. It is to be hoped that in the near future the rank and file of the profession will discover that much of the trash that is being pushed upon them under the garb of scientific medicine, is far from being true to its name, and deserves total destruction from their hands.

THERAPEUTICS SHOULD NOT BE BASED UPON NOSOLOGY.

When we study the literature of the day our consideration of the diseased man seems to be a complicated affair, but, after all, practical medicine resolves itself into the consideration of man in health and in disease. If we do not understand the former we cannot treat the latter with any degree of success. Scientific medicine can only be based upon physiology. An individual is diseased only to the extent that he departs from the healthy standard. In an earlier day the rule of excess, defect and perversion was applied, and if used to-day it would be of much assistance. The attempt to simply give a collection of symptoms a name and prescribe a set formula for the same, is not good practice. Often to give a name to some certain condition is like the vain attempt of dividing the surface of a lake into acres, and at the same time we would not depreciate a *nosological* diagnosis, but would earnestly protest against endeavoring to base therapeutics upon it.

The practice of the healing art comes under a different law, and to read the ordinary articles a person would come to the conclusion that this law is ignored , but our acquaintance with physicians causes us to know better, for individualization is practised to a greater extent than many of the articles we read would lead us to believe. It is essential to keep well before the profession the great fact that a rational application of therapeutics can only be carried out successfully by studying the drug action and applying it to the pathological process. A closer study of disease expression is called for, and a separation of nosological diagnosis and therapeutical diagnosis is needed in many cases.

ARSENIC POISONING.

Recently there has been in several cities in Europe an epidemic of Arsenical Neuritis due to impure beer. The possible source they claim is the importation of large quantities of glucose from America. It was first noticed in Manchester and diagnosed as alcohol peripheral neuritis. A more careful study showed that it was not typical peripheral neuritis, due to alcohol alone, but another cause or causes must exist in order to produce the characteristic pigmentation of the skin. Analysis of the beer soon found the poison.

According to the Lancet, careful investigations show that certain specimens of brewing sugars were found to contain four parts of arsenic in ten thousand parts of sugar. They believe that the original source of the arsenic is the sulphuric acid used in the manufacture of the sugar.

BOOK REVIEWS

A System of Practical Therapeutics. By Eminent American and Foreign Authorities. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics, Jefferson Medical College; Physician to Jefferson College Hospital, etc., Philadelphia. New (2d) edition, thoroughly revised. In three very handsome octavo volumes, containing 25,93 pages, with 427 engravings, and 26 full-page colored plates. Per volume, cloth, $5.00, net; leather, $6.00, net; half morocco, $7.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York. 1901.

It is scarcely possible, in a short review, to call attention to all the commendable features of this volume. The little page indicates the scope of the work. The contents of Vol. III. is as follows:

Anæsthesia and Anæsthetics (*new*). By Charles Lester Leonard, M.D.

Surgical Technique (*new*). By Charles H. Frazier, M.D.

The Treatment of Fractures and Dislocations (*new*). By Henry R. Wharton, M.D.

Minor Surgery and Bandaging (*new*). By George W. Spencer, M.D.

Cerebral Concussion and Shock. By Joseph Ransohoff, M.D., F.R.C.S., Eng.

Pleural Effusion and Empyema; Abscess and Gangrene of the Lung. By. A. J. McCosh, M.D.

Peritonitis, Non-Operative and Post-Operative, Apendicitis, Paratyphilic Abscess, and Obstruction of the Bowels. By George Ryerson Fowler, M.D.

Obstruction of the Intestines. By Edward Martin, M.D.

Diseases of the Rectum and Anus. By Joseph M. Mathews, M.D.

Therapeutics of the Male Genito-Urinary Tract. By William. T. Belfield, M.D.

Therapeutics of the Genito-Urinary Dis-

eases of Women. By Edward E. Montgomery, M.D.

Therapeutics of Pregnancy, Parturition, and the Puerperal State (*new*). By Edward P. Davis, A.M., M.D.

Diseases of the Eye and their Treatment by the General Practitioner. By Casey A. Wood, M.D.

Diseases of the Ear and their Treatment by the General Practitioner. By S. MacCuen Smith, M.D.

Diseases of the Nasal Chambers and Associated Affections. By E. Fletcher Ingals, M.D.

Diseases of the Uvula, the Pharynx and Larynx. By D. Braden Kyle, M.D.

The above contributors to this volume are widely known as writers and teachers and are held in high authority. The product of their pens is always of value and will be a guarantee that what they have written will repay perusal and study. As I have said, it would be impossible to write a complete review of the work, but a few of the articles deserve special mention, among them Peritonitis, Non-operative and Post-operative, Appendicitis, Paratyphlitic Abscess, and Obstruction of the Bowels, by Geo. Ryerson Fowler, M.D.; Diseases of the Rectum and Anus by Joseph M. Matthews, M.D.; Therapeutics of the Genito-Urinary Diseases of Women, by Edward E. Montgomery, is a most interesting and instructive article, in which he gives information that will, no doubt, be appreciated by every practicing physician. The discussion on Minor Surgery and Bandaging, by Geo. W. Spencer, M.D., is full of good practical advice.

We are well pleased with the work, and the editor deserves much credit for the most excellent manner in which he has carried it to completion. The publishers have more than done their part from a mechanical point of view. It gives us pleasure to say that no physician can afford to be without the work.

The International Medical Annual. A Year Book of Treatment and Practitioners' Index. E. B. Treat & Co., New York. Price $3.00.

Any book that has been published for nineteen consecutive years, and meets the approval of the public, needs very little comment from a medical journal writer. It has always been our pleasure to admire and use the Annual. In this issue in the department of Therapeutics a special article has been contributed by Prof. McFarland, of Philadelphia, and Dr. William Newell, on Toxins and Antitoxins. In the Dictionary of Treatment will be found articles covering the whole range of medicine and surgery contributed by authors whose names are most familiar to the readers of the "Annual."

Amongst the new contributors will be found the name of Prof. Ruata, of the University of Perugia, Italy, whose contribution on Tuberculosis is of great practical value.

Special articles on X-Ray work in Medicine and Surgery have been written by Dr. Macintyre, of Glascow; on Color-Blindness, by Dr. Edridge Green; and on Dental and Oral Surgery, by Mr. Turner, F.R.C.S.

The volume is a faithful reflex of present views, and will be of great value to the medical man. It bears the same impress of neatness and careful preparation as is characteristic of its predecessors.

A Hand-Book of Genito-Urinary Surgery and Venereal Diseases. By G. M. Phillips, M.D., Professor of Genito-Urinary Surgery and Venereal Diseases, Barns Medical College, St. Louis. Lewis S. Matthews & Co., 714 Pine St.

This is a practical work and presents all matters in their most comprehensible manner. The author pays special attention to the anatomy and physiology of these areas from the fact that a correct and thorough understanding of such subjects cannot be had without this information. The subjects treated are those which the ordinary practitioner has to treat, such as phimosis, circumcism, amputation of penis, gonorrhœa in all its stages, cystitis, stricture in all its forms, and all derangements of the prostate.

Due attention has been paid to impotence, masterbation, sodism, masochism and neurasthenia sexualis. The book has a good index.

Principles of Surgery. By S. Senn, M.D., Ph. D., LL.D., Professor of Surgery in Rush Medical College in Affiliation with the University of Chicago; Professorial Lecturer on Military Surgery in the University of Chicago; Attending Surgeon to the Presbyterian Hospital; Surgeon-in-Chief to St. Joseph's Hospital; Surgeon-General of Illinois; Late Lieutenant-Colonel of United States Volunteers and Chief of the Operating-staff with the Army in the field during the Spanish-American War. Third Edition. Thoroughly Revised with 230 Wood-engravings, Half-tones, and Colored Illustrations. Royal Octavo. Pages, xiv—700. Extra Cloth, $4.50, net; Sheep or Half-russia, $5.50, net. Delivered. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry St.

The scope of the present work includes placing in the hands of the practitioner and

surgeon a most carefully prepared text-book covering the entire field of surgery. This, the third edition, has been thoroughly revised and many additions made, among them two new chapters, one on "Degeneration" and the other on "Blastomycetic Dermatitis." The standard of excellence hitherto commended has been well maintained in this volume of 1901. The work before us possesses not only the merit of being a complete and comprehensive text-book perfectly suited to the needs of the student, but must prove a most helpful guide also, not only to the special surgery but also to the general practitioner, who will, doubtless, always continue to treat many cases of minor surgery. The book, as a whole, must be strongly commended. The mechanical execution of the volume is entirely creditable in all respects.

A Text-Book of Gynecology. Edited by Charles A. L. Reed, A.M., M.D. President American Medical Association. Gynecologist and Clinical Lecturer on Surgical Diseases of Women at the Cincinnati Hospital, &c. Illustrated, by R. J. Hopkins, New York. D. Appleton & Co. 1901.

The author states in the preface that in the preparation of this work there has been held in view the three following special objects, viz: 1 The formulation of a text-book which shall embracee the best approved developments of gynecology, including those of later date than are, or can be, included in a work of similar magnitude by a single author.

For this purpose assignment of topics was made to a considerable number of writers, but only to those who have acquired reputation in connection with the subjects upon which they were asked to write. This division of labor, giving to each writer a relatively small amount of work, insured a careful preparation of copy in the shortest possible time, and the issuance of a strictly up to date volume.

2. The co-operation of the various departments of medical science in their synthetic relation to gynecology. For this purpose contributions were invited from several writers who are not gynecologists in the strict sense of the term. Thus the various topics upon pathology were given to pathologists, while those relating to bacteriology, dematology, neurology, hygiene, &c., were assigned with similar appropriateness.

3. The specific recognition of the work of investigators and operators in gynecology and correlated departments.

For this purpose invitations to contribute to the work were limited to those who had already contributed something to science. From the preceding it is manifest that this is a very able work on Gynecology. The illustrations are beautiful and the printing superb. It gives us pleasure to recommend it to our readers.

A Medico-Legal Manual. By William W. Keysor, Lecturer on Medical Jurisprudence in the Onea Medical College, &c. Omaha Printing Company. 1901.

This work presents and emphasizes the legal side of Medical Jurisprudence; furnishes a variety of useful information on legal topics of particular importance to medical practitioners, and familarizes the doctor with those legal terms and principles which he ought to know and comprehend, in order to acquit himself creditably as an expert witness. While written primarily for medical students and practitioners, students of law will profit by reading it as an introduction to a thorough study of medical jurisprudence; and even the busy lawyers may find in it a suggestion that will aid him in the preparation of his case for trial.

The Medical News Pocket Formulary for 1901. By E. Quin Thornton, M.D. Third Edition, Revised and Enlarged. Lea Brothers & Co. Philadelphia and New York. 1901.

This formulary is so well known to the profession that it needs but little mention. This edition has been revised and enlarged and the formular includes many old drugs in new combinations, and also on the newer drugs which, by experience, have been found to be valuable. The arrangement of the text has been planned to conduce to the greatest convenience. Diseases are arranged alphabetically and all quantities are given in both the ordinary and metric systems. Great attention has been paid to palatability and pharmaceutal elegance. The book is handsomely and durably dound.

Harrington's Practical Hygiene. For Students and Practitioners of Medicine and Medical Officers. By Charles Harrington, M.D., Assistant Professor of Hygiene in Harvard Medical School, Boston. In one very handsome octavo volume of 718 pages, with 105 engravings and 12 full-page plates in colors and monochromes. Cloth, $4.25 net. Lea Brothers & Co., Publishers, Philadelphia and New York. 1901.

The author of this work has provided a student's text-book which covers the most important topics included in the wide domain of Hygiene, and will be useful in the laboratory and as a reference book for practitioners and health officers. The subjects

discussed will interest all. There has been in no department of science so great advancement as has taken place in the field of Hygiene, Sanitation and Prophylaxis. For the individual as well as for the public welfare nothing is more important. The author has collected together this vast domaine by presenting its most modern results and data in a single convenient volume. It will serve the needs of the student, physician and sanitarian. The chapters on Military, Naval, Marine and Tropical Hygiene are good. Special attention is called to the sections on Food, Diet, Air, Soil, Water, Rest, &c.

It is a complete volume on this subject. It is authoritative, practical and modern. It is well illustrated with over 100 engravings and 12 colored plates. The paper, typographical work and binding are excellent.

Studies of American Fungi. Mushrooms, Edible, Poisonous, etc. By George Francis Atkinson, Professor of Botany in Cornell University, Ithaca, N. Y. Andrews & Church, Publishers.

This book undoubtedly tells one all about mushrooms. It shows you how to distinguish between a poisonous and a non-poisonous one—an edible and a non-edible one. It shows you the foolishness of asking the question, "How do you tell the mushroom from the toadstools." This implies that mushrooms are edible and that toadstools are poisonous, and this belief is very widespread in the public mind. The fact is many of the toadstools are edible, the common belief that all of them are poisonous being due to unfamiliarity with the plants or their characteristics. One important danger should be pointed out to the student and that is not to rely on books which gives brief descriptions of the poisonous species, they in most cases miss the plant because the description in which they relied was too inadequate. This relying on brief descriptions has undoubtedly led to most of the cases of mushroom poisoning. The selection has been made of those species representing the more important genera, and also for the purpose of illustration, as far as possible, all the genera of ogaries found in the United States. It may be of interest to know that the author of this work was once a member of the faculty of the North Carolina University. The work is well worthy of study.

Self-Examinations for Medical Students. Third Edition. P. Blakiston's Son & Co. Ohio.

This little book contains 3,500 questions, leading questions, on medical subjects, arranged for self-examination. The student preparing for examination will find it of use in keeping him posted for that which is to follow. By its use he can keep the leading subjects fresh on the mind.

Curability of Tumors by Medicines. By J. Compton Burnett, M.D. Second Edition. Revised. Philadelphia. Boericke & Tafel. 1901.

This book contains 343 pages and is well bound and printed in clear type. The writer's standpoint is that a tumor is the product of the organism, and to be really cured the power to produce the same must be eliminated. He treats them accordingly.

Secret Nostrums and Systems of Medicine. A. Book of Formulas, Compiled by Clas. W. Onelson, M.D., (Howard). Eighth Edition. Chicago. Onelson & Co., Publishers, 35 Clark St. 1901.

This book gives in a reliable form the composition of all the nostrums now on the market. Some are good and some are not. It is interesting to read them over. The work is bound in a blue binding and serves very well the purpose for which it was written.

Transactions of the American Dematological Association at its Twenty-fourth Annual Meeting, held in Washington. Chicago. P. F. Pettibone & Co., Printers. 1901.

These transactions form a very readable volume of 232 pages. The papers are many, well illustrated and carefully prepared. The proceedings are well reported and fully discussed. Frank Hugh Montgomery is Secretary of this Society.

LITERARY NOTES.

THE MAY "NEW" LIPPINCOTT.—Paul Laurence Dunbar's new novel, "The Sport of the Gods," is published entire in the May "New" Lippincott Magazine. This is by far the strongest and best fiction from a pen noted for its humor and pathos. As "Uncle Tom's Cabin" in its day held the reader captive, so does this novel of the new Negro, enfranchised but still a charge upon our consciences. Opening with a false arrest, trial—so-called—and conviction in a Southern town, the tale shifts to New York. Here the writer speaks from the heart when he says of the Southern Negroes who come North seeking their fortunes: "It was better for them to sing to God across the Southern fields." In the cases of Joe Hamilton and his pretty sister Kitty this was undeniably the truth. Towards the end a

"yellow" journal repoter discovers the secret of the early arrest. His acumen not only brings glory to his paper, but reunites those with whom the "Gods" have been "sporting."

In addition to the complete novel there is plenty of good short fiction, varied in theme, in the May "New" Lippincott. A story of Mexico, by Edwin Knight Buttolph, called "The Slavery of Moises," gives a glowing instance of a man's sacrific for one he loves. "This Supreme Court of Love," by Julia MacNair Wright, is an amusing prose face in an apartment-house. Jessie Van Zile Belden's little story called "Tony" has to do with the softer side of a United States Senator. In this some violets, a lovely woman, and innocent little "Tony" are important factors. The College Tale this month is in honor of Chicago. It is called "The Head Marshal of the University of Chicago," and is written by James Weber Linn, assistant in the department of rhetoric at Chicago. He has written other tales of undergraduate life, but none to excel this lively one.

Much has been told about China, but nothing has been written at once so dramatic and so convincing in regard to missionary life as the two incidents given under the title "In the Dragon's Grip." They are reported by Frederick Poole, for many years missionary, to whom and his wife they befell. Mr. Poole is now working among the Chinese in this country. His signature in Chinese characters at the close of the article is typical.

"Every-Day Superstitions," by Charles M. Skinner, deals with some human failings, giving origin and growth.

"Overheard in Arcady," by Dr. Charles C. Abott, is a beutiful essay on bird-life from one whose days are spent in intimate listening to the whispered notes in woods and fields.

Poetry takes a forward place in the May "New" Lippencott: "Can Such Things Be?" a sonnet of rare felicity," is by Madison Cawein; "The Loss of the First-Born," by Mabel Thornton Whitmore. Edith M. Thomas continues "Masts in Harbor," and C. W. Doyle, M.D., "The Two Brothers." Willa Sibert Cather sings of "In Media Vita," and Edmund Vance Cooke, "The Tomb of Shakespeare." "The Monument" is a Memorial Day Poem by Dallett Fuguet.

"Aguinaldo's Capture and the Philipine Commission" is the title of the leading article in the May Forum. Its writer, Mr. Marrion Wilcox, ascribes to the conciliatory work of the Commission much of the credit of the Philipine chief's surrender. A timely paper by Prince Kropotkin on "The Russians in Manchuria" casts grave doubt upon the wisdom of the expansionist policy of the Czar's government. Prof. Theodore S. Woolsey offers several practical suggestions in discussing the value of "Bonds of Foreign Governments as American Investments." In dealing with various methods for "The Lighting of Railway Cars," Mr. G. D. Shepardson advocates the more general use of the electric berth lamp. Prof. Arlo Bates presents "The Negative Side of Modern Athletics"—a protest against excessive devotion to sports. Mr. Gustav Kobbe, the distinguished theatrical critic, comments in an interesting causerie on the "Events of the Dramatic Season." The story of "How London Was Saved," as told by Mr. John Martin, points a moral for municipal reformers in this country. Under the somewhat revolutionary title, "The Spoiled Parent," Mr. Wilbur Larremore expounds the doctorine that the duty of filial obedience has its limitations, at any rate in the case of children of adult years. Prof. W. S. Scarborough, one of the leading educators of his race, recommends, in an artice on "The Negro and Our New Possessions," that American statesmen should consider the possibility of utilizing the acquisition of the Philippines as a means of solving the colored problem. Hon. Charles Denby contributes, from his own experiences at Peking, a bright and instructive account of "Some Chinese Traits." The connection between "Bryanism and Jefferson Democracy" is traced by Mr. Albert Watkins in a paper which calls attention to several facts generally forgotten by Democrats and Republicans alike. Mr. W. H. Hobbs, writing on "Art as the Handmaid of Literature," treats especially of the recent movement toward the collaboration of author and artist in the illustration of books and magazines. This number also contains articles on "A New Class of Labor in the South," by Mrs. Beck Ellis; "Sheep and the Forests," by E. V. Wilcox; and "The Latest Stage of Library Development," by E. I. Antrim.

No broader distinction can be made between men than that which divides them into two classes. To the first class belong those who always have a good excuse why the thing required cannot be done. The second class is composed of those who manage to *do*. Foremost in this latter class stands out the figure of General DeWet. Allen Sangree, who has just returned from

the Transvaal, draws a vivid picture of the character of this most remarkable general of modern times for the May Cosmopolitan, and the article is illustratted with the most complete collection of photographs and drawings yet published.

A new short serial by Kate Douglass Wiggin, to run through three months, is the leading feature of the May Scribner. Mrs. Wiggin's delightful humor, revealed so charmingly in the Penelope books, appears in every page of "The Diary of a Goose Girl." It is the story of a beautiful American girl who flies from an attractive but too persistent love to the seclusion of a goose farm in a quiet English county. The illustrations are by Shepperson, an English artist thoroughly familiar with the region.

That monthly mirror of the world's news, the Review of Reviews, covers in its May issue a great variety of current political and industrial types, including the recent municipal elections, the Cuban and Philipine situations, the relations of labor to the new steel trust, the threatened war between Russia and Japan, and England's enormous war taxation.

ABSTRACTS of One Hundred of the Leading Articles of the Month.

Alcohol in Acute Fevers.

There will always remain a wide difference of opinion as to whether alcohol should be given in fever or not. Elias H. Bartley, in the New York Lancet, says:

While the medical profession in general, from Hippocrates to the present time, have employed alcohol in fevers, there has developed in modern times a sentiment in many minds, even among medical men, against its use. Time will not permit us to discuss this question in detail, but we may content ourselves with stating what seems to be the prevailing opinion upon this subject. The following statements may be of use to us in formulating an opinion on the use of alcohol:

1. Alcohol can be burned in the human body, and furnish energy, when not given in too large quantities at a time.

2. When given in large doses, more than can be burned up, the excess acts as a poison to the tissues. It may then do harm.

3. Alcohol, in health, in even small doses, inhibits the functions of the nervous system.

4. When given in doses not exceeding two fluid ounces per day of absolute alcohol, i. e., four ounces of brandy or eight ounces of port or sherry, it diminishes tissue waste and especially the waste of fat.

5. It stimulates the heart and nervous system when given in moderate doses, and dilates the capillaries; thus cooling the body by increasing the radiation of heat.

In giving alcohol in fevers we should not give more than enough to act as a mild stimulant, and should avoid the paralyzing after-effects. There is good theoretical ground for the belief that alcohol should not be given as a routine treatment in fevers, and should be reserved for well-defined indications, such as:

1. Failing circulation, as shown by the rapid, weak, irregular pulse, with especially a weak first-sound of the heart.

2. Exhaustion of the nervous system, as shown by sleeplessness, low delirium, or tremors. If alcohol quiets these, it is needed and should be continued in measured, regular doses.

3. In failure of the digestive apparatus as shown by vomiting, diarrhea, dry tongue, or if the tongue becomes covered with white or gray patches.

4. In feeble, aged, or alcoholic subjects.

5. In septic, malarial, erysipelatous fevers and in most cases of acute poisoning.

Advertising in the Profession.

There is a wide difference of opinion as to what constitutes medical advertising. This is a most vital question of the present time. G. Frank Lydston contributes an article on this subject in The Medical News. Along this line in a portion of his paper he says:

It is my belief that "Thou shall not advertise, was of necessity written in a Pharisaical spirit, and that it has been the cloak of more inconsistency and hypocrisy than anything ever written for the guidance of medical men. Whatever the conditions may have been at the time the code was written—and I do not believe they differed in kind from those prevailing at the present day—conditions nowadays absolutely demand advertising of one kind or another on the part of medical men. The physician may gloss this necessity over, and he may deceive himself into the belief that he is not given to advertising, but the fact still remains that he must advertise or starve. All roads lead to Rome, and it is by no means necessary that the physician should advertise in the newspapers or by handbills, in order to accomplish his ends; nor does it follow that he is unjustified or unworthy of respect because under the stress of his environment

he advertises in one way or another. If the opinions of those who champion the cause of the commission-giving and commission-taking doctor should be accepted by the profession, it would no longer be possible to classify advertising on the part of physicians. There is nothing lower in the scale in advertising than the commission business. Give the medical man the privilege of sending out paid agents, or employing professional drummers on commission, and he will have nothing more to conquer in the world of advertising. Commission practice in point of effectiveness, bears the same relation to ordinary advertising that accurate rifle-shooting does to inexpert shotgun practice. With the professional drumming sleuth on the trail of an operation case, it is hardly possible that it could escape. I believe, however, that the reputable members of the profession discountenance such methods as those involved in commission-paying, commission-receiving, and medical and surgical drumming.

The most important form of professional advertising are college advertising, church advertising, secret society advertising, and that indefinable something known as newspaper prominence, which is called advertising by the fellow who can't get it, and is considered a laudable enterprise by the fellow who does—the old story of the pigs in the clover patch. As is true of all other affairs in human life, it is a noteworthy fact that it is the pigs outside the fence that do most of the squealing.

Atropine--A Heart Tonic.

In an article in Merck's Archives headed "Heart Tonics" by J. Upshur. Atropine occupies fifth place in the rank. He says:

Atropine.—Its physiologic action is to stimulate the cardiac sympathetic, the accelerator apparatus of the heart, producing increased frequency and increased tension and at the same time to lessen the inhibitory apparatus. It must not be pushed to the point of exhaustion. Its greatest usefulness is in tiding the patient over an emergency, in cases of sudden collapse and threatened heart failure. Some of the cases of flabby, fatty heart, especially those in which we have bronchorrhea as a sequence of the impaired action of the heart, and in which also there is risk to the patient from threatened stoppage of the heart, and from interference with respiration by the flooding of the bronchial tubes with mucus, are peculiarly benefitted by atropine because it deals with both these conditions. A respiratory stimulant as well as a cardiac, it strengthens respiration and stops the effusion of mucus by its flying effect on the bronchial mucous membrane. However, it is always important that it should be combined with strychnine. Potter recommends its use hypodermically in threatened heart failure from chloroform nacrosis.

A Review of the Literature of the Use of the Therapeutic X-Rays.

The therapeutic uses of the X-Ray are numerous. By careful study new uses are discovered from day to day, and it may be safely predicted its usefulness is yet in its infancy. Among the many articles written upon this subject there are none more interesting than the one by Harvey P. Fowle, in the Boston Medical and Surgical Journal. He says we may conclude:

(1) That the real nature of the x-rays is not yet determined definitely, nor whether the therapeutic action following their use is due to the action of the rays themselves or of something of electrical origin accompany them; (2) that the treatment is not without danger, unless the greatest care is used; (3) that the effects of the x-rays remain for a long time, and recovery is very slow; (4) that what may be the exact origin of the effects produced, a definite reaction is caused in the skin by the use of the x-Rays; (5) that the changes induced in the skin are similar histologically to those in the ordinary inflammation; (6) that the x-rays are not proved to have any bactericidal power; (7) that their threapeutic effect is probably due to the inflammation excited; (8) that hair can be removed by their use, and that lupus and several other diseases can be healed over; (9) that in a few reported cases we may fairly assume that a permanent cure has been effected, but that in a majority of the reported cases too little time has elapsed to rule out the possibility of a return of the disease; (10) that the effect of exposure to the x-rays is so extraordinarily slow in disappearing that months should elapse before an absolute cure is assumed; (11) that while the permanency of the effected cure may perhaps be doubtful as yet, it is certainly desirable to experiment further.

A Plea for the Conservation of Breast Milk in Whole or in Part.

Concerning this important subject Thos. S. Southworth in the Record says;

It is high time that the profession should give deep and thoughtful consideration to this problem. The medical press contains frequent articles upon artificial feeding,

which refer, it is true, to the dangers of bottle-feeding, but accept the abandonment of the breast as an inevitable evil without any effort to strike at its root by offering practicable suggestions which may render such abandonment unnecessary. However perfect may be our measure for artificial feeding, we still find that in the aggregate these children do not thrive so well as the breast-fed child. Modifications of cow's milk are vastly superior to infant foods. They approximate more nearly to the natural nourishment of the infant. But the composition of cow's milk and human milk is not the same, and no amount of modification will make them exactly the same. We do know that the various proteids in the two differ in their relative proportions; but we can as yet only vaguely surmise the influence upon the infant of the immunizing and protective principles or the aids to digestion and normal growth furnished and adopted to the young of its own species by the secretion of the human breast. Let no one mistake our positian for an attack upon modificatins of cow's milk and the recognized value of percentage feeding when maternal breast milk is not available. But rather let it be clearly understood as a protest against any subtle tendency to the belief that, as a profession, we are fully warranted in substituting the bottle for the breast for young infants unless we have conscientiously exhausted every known means of maintaining the maternal milk.

Abdominal Pain in Typhoid Fever.

Concerning this condition Thomas Mc Crae, in the New York Medical Journal, draws the following conclusions:

1. About two-fifths of the patients are free from pain or tenderness, rather less than one-fifth have tenderness only, and pain is present at some time in about two-fifths of the cases, but during the course only in about one-third.

2. Pain due to some condition other than the specific bowel lesions was present in about 14 per cent. of all cases and in about two-fifths of the patients having pain during the course.

3. Pain occurred with hemorrhage or perforation in about 5 per cent. of all cases, and in about 15 per cent. of the cases in which there was pain during the course.

4. Pain was most constantly present with perforation, when it was usually sudden in onset, severe in character, and paroxysmal in occurrence. The pain of perforation was most closely simulated by that occurring in some cases of hemorrhage, that from phlebitis, and that of unknown origin.

5. In about two-fifths of all cases with pain during the course no cause could be found. Should this occur with other abdominal symptoms the condition may much resemble perforation.

Axis-Traction Forceps.

For high application and for difficult median application we need, says Egbert H. Grandin, in the Medical Record, a type of instrument which will fulfill the following indications:

1. Traction in the correct axis.

2. Traction with expenditure of the least effort on the part of the operation.

3. Traction with the least compression of the fœtal head.

4. Traction with the least interference with normal mechanism (*e. g.*, rotation.

5. Traction with least consequent damage to the maternal parts.

Those who are familiar with the axis-traction forceps will tell you that there is no type of the instrument which meets these indications to better advantage.

Alcohol as a Food.

In a recnt address by I. N. Love given in the Medical Mirror, Concerning the use of alcohol he says.

Among the so-called auxiliary food alcohol is the only one which is open for discussion. Accepting as we may the views of Dujardin-Beammatz Thompson, Pavy, Burney Yeo, Atwater and others in favor of the fact that when alcohol is ingested in the system in moderate quanites a part is utilized and only a part eliminated and it is therefore a food, it does not follow that it is essential to life. Many things may be oxidized and used in a body, and be a food to that degree, yet not be a desirable one. The evidence is constantly accumulating that, as a food, alcohol is of doubtful utility, and the list of valuable foods that are in no way involved in doubt, and certainly not harmful and dangerous to the body, mind and soul, is so great that alcohol as a food may well be left out of our nutritriv philòsophy and be permitted to take its place as a stimulant pure and simple. As a matter of fact, the dangers that are associated with alcohol are so great that it should only be classed under the head of medicines and luxuries. As a luxury, it certainly adds to the human conviviality, cheerfulness and happiness when used in very moderate quantities, but then only with the meal. If used liberally it takes its place along with opium and Indian hemp, premarily as an exhilirant and seconly a depressant and nar-

cotic. A very limited amount of alcohol with the meal now and then does to an advantage, stimulate appetite and improve digestion, and by its psychic effect, making the user enjoy his food and environment, it may be healpful. The limited amount of good that it may do, in this way, in a few rare cases, is offset a thousand, yes, a million fold by the awful dangers which accompany its use. The writer has for years had liberal views on this question, and while he believes that the proper solution of the temperance problem lies in teaching every child from the begining until matured, to be the ruler of its own spirit, to cultivate self-denial, self-control, self-respect, yet more and more as time passes he believes that absolute avoidance of alcohol in all its forms as a beverage, as a luxury, is the saftest course for all, and that while now and then a strong self-reliant, rigid backbone individual may with impunity take his occasional drink or liberal indulgence, the endorsement given to the drinking of alcohol byhis act and injury to his brother, whose keeper he really is, however much he might wish to avoid his responsibility, is an unanswerable argument against him.

Advances in Obstetrics During Last Half Century.

Many advances have taken place in the practice of obstetrics in the last twenty-five years. Concerning the use of the English mixture of chloroform, ether and alcohol to 1,000 cases A. H. Halberststadt gives the following conclusions:

1 The parturient state is the only condition of the system during life in which anesthemetics, judiciously administered, are entirely devoid of danger.

2. The physiological action of chloroform, ether and alcohol in a woman during labor is not identical with that in an ordinary subject in a dental chair or on the surgeon's table; and, from the history of such administration, free from a well-authenticated case of death, with statistics showing its superiority over venesection, opium, etc., in the deperate emergencies attending irregular labors, as eclampsia, it is fair to infer that this agent is an especial therapeutic indication for parturient women and should be so regarded in all labors where by its use the pains of the first and second pages could be obviated and this, too, to the ultimate benefit of the mother and safety of the child.

3. In puerperal eclampsia it is especially indicated, because of its direct, rapid and general action controlling nervous physiological irregularities, exciting secretion, relaxing the os and perineum, and, in short, preparing the parts so as to aid the accoucheur in his manipulations for the essential emptying of the uterus, to accomplish which vensection, opium, purgation, baths, counterirritation, etc., ether singly or combined, bear to anesthetics the relation of mere fractions to a grand whole.

4. Its application is universal; no disease of heart or lungs should forbid its use.

5. In view of its known therapeutic action and safety in the small quantity required to produce narcrosis, no use of the forceps, version or obstetric operation of any moment should be performed without it, not only to save the patient from shock and its consequence, but because of the great saving of time and labor, and in most instances the assistance it affords the oprator.

6. Owing to the fact that uterine contractions are sometimes lessened by the administration, it may be regarded as important to precede it by an oxytocic in all labor, and at any stage where the pains are slights so as to increase their force, and also to guard against postpartum hemorrhage, a very infrequent occurrence where such precautions are taken.

7. Accidents to the unemptied bladder, ruptures of perineum and sphincter ani may be prevented, as well as death to the child in prolapsus of the cord, by the facilities afforded for rapid delivery in primiparæ.

8. In no instance have I seen narcosis of the child attributable to the anesthesia.

The small quantity necessary to produce semi-narcosis or full narcosis, the abscence of nausea, exhaustion or shock on the retun of consciousness, the impossibility of nervous perturbations, the freedom from hemorrhage, the invariably rapid getting up, with the small percentage of stillborn children, are facts that go very far to prove that which I beleive to be axiomatic.

By judicious administration of an anesthetic you cannot possibly do harm to a woman in childbirth; nor can you fail to do her good.

A Few Words of Advice to Students and Young Practitioners in India.

Medicine is a noble profession. This is a hackneyed phrase, but is nevertheless true, for is there anything nobler and more beneficent than that which aims at prevention of disease, alleviation of human suffering and ministering to the wants of mankind at a time when it is needed.

The above was written by A. Mitra, Rai Bahadur, in the Indian Medical Record, and he further says:

When you come out into the world as a full-blown "doctor," do not think that your education is complete, and that you can then take life easy, and devote all your attention to earning money. Your education really begins after you leave the college portals. Enter the profession as a humble votary of science with the consciousness that you have yet to learn, and that, too, every moment in your life. You will meet with disappointments in your diagnosis, in your practice of medicine and surgery, and in your treatment. Every disappointment will be a lesson and guide for the future. Do not consider your elders in the profession as "old fools," and that you come with a new light. Be respectful to experienced men of your profession. If you find your consulting physician has made a mistake, you may be sure that you may do as badly, if not a worse one, in your after-life. Do not speak ill of your professional brethren, or criticise their prescriptions before laymen.

The Business of Practice.

J. Dundas Grant writes interestingly upon this subject in the British Medical Journal. He says.

Though many members of the profession are careful to a degree in regard to business matters, a very large proportion are in this respect deplorably negligent. The mere rendering and recovering outstanding accounts may seem a trival matter, and nenligence in regard to this may be due to the greater interest taken by the practitioner in making himself a good workman and increasing his professional reputation rather than in collecting his fees- To show how indulgence with debtors may damage a reputation I will recall a genuine case of a patient who owed her doctor a bill and was afraid to call him in in case he should ask for it. What more natural than to summon another man, and when asked by neighbors why the medical attendant was changed, to attribute to his carelessness, unskillfulneas, or anything rather than the true cause? Again, the doctor's indulgence may lead to the patient "running up" an account which it is quite out of his power to pay.

It is as important for the practitioner to save as any ordinary citizen, but in his case there are a few special reasons for his endeavering to make himself indepennent of temtations to which the *res angust domi* may render him liable, such as the multiplying of visits and consultations or the performance of avoidable operations. What practitioner has not at some time or other had to refuse the liberal payment offered him for the removel of the fertilised ovum? I say, then, that the medical man who thinks it worthy of him to take the steps necessary for securing his financial position allows himself to totter near most dangerous pitfalls.

I will only refer to the need of providihg by insurance, investment, or otherwise, for times of professional depression, for accident, illness, and, still more, for old age. I hold that a man should endeavor to retire from practice before practice retires from him, whether he be induced to postpone his retirement by financial necessity orby mere love of his professional work. It is not uncommon to find elderly practitioners becoming disappointed, jealous, cantankerous, peevish, and even vituperative, who had formerly been open in manner, geneous in Judgment, and kindly in counsel.

The Classical Cesarean versus Porro Cesarean.

According to the Journal of the American Medical Association, Geo. M. Boyd concludes an article on this subjct in the following mannner:

1. That the life of the infant alone, under certain conditions, justifies the Cesarean section.

2. That the clasical Cesarean has as low a mortality as an easy ovariotomy. Is not the life of the child then as good a reason for performing a simple obdominal section as are the vague symtoms for which operations are daily done.

3. That the clasical Cesarean is less mutilating than the Porro Cesarean, and, with the patient in good condition, is therefore the operation of choce.

4. That the Porro Cesarean has about the same mortality as has hysterectomy for fibroids. That it should be performed when the paitent demands it, or when infectoin or a neoplasm of the uterus make it necessary.

5. That it is the duty of the practitioner in attendance on a multipara with the history of one or more dead children, to be prepared to perform the Cesarean section. If he does not possess the necessary sugical training then he should call to his assistance the obstetric surgeon.

The Choice of Operations for Stone in the Bladder.

Byron B. Davis, in the Georgia Journal of Medicine and Surgery, favors lithotrity as the best operation for stone in the bladder, and these are his reasons:

1st. The mortality of lithotrity, when all

classes of cases are considered, is no lower than that of the cutting operations.

2d. The patient's condition after lithotrity is often no better than before.

3d. Recurrences are much more frequent after lithotrity than after the cutting operations with drainage.

4th. Lithotrity is not adequate to deal with the more serious and complicated cases, and the simpler ones will, most of them, recover after any operation done aseptically.

The Comparative Pathology of the Jews.

There appears in the New York Medical Journal a very interesting article by Maurice Fishburg upon the above subject. He says mental diseases occur more frequently among the Jews than among non-Jews. All statistics show plainly the frightful disposition of the Jews to insanity and idiocy. General paralysis was found to be six times more frequent among the Christian than among the Jewish patients. At the close of his article he gives the following summary:

I. The death rate of the Jews, at all ages, are relatively and absolutely lower than those of the people among whom they live.

II. The marriage rates and birth rates of the Jews are smaller than those of the Christians; the Jews increase in number more rapidly than non-Jews, because they lose by death relatively fewer children and bring more to maturity.

III. The Jews die less often than their neighbors from many of the infectious diseases, particularly epidemic cholera, smallpox, and tuberculosis.

IV. Syphilis and alcoholism, and also diseases due in great measure to their poisons, are comparatively rare among the Jews.

V. Diabetes is very frequent among the Jews. Most observers have recorded that almost twenty-five per cent. of all the cases of diabetes occur in Jews.

VI. All the functional neuroses and psychoses, particularly neurasthenia and hysteria, occur more frequently among Jews than among non-Jews; while all the organic nervous diseases, as tabes, general paralysis, etc., are less frequent, commensurate with the infrequency of syphilis and alcoholism, among them. The great majority of cases of amaurotic idiocy occur in Jewish children, and insanity is met with among Jews between two and five times more often than among Christians.

VII. Blindness, colorblindness, trachoma and glaucoma, and also varicose veins, particularly hemorrhoids and hernias, are very frequent among Jews

VIII. All these peculiarities in the comparative pathology of the Jews are not due to any ethnic, "biostatic," or racial characteristics of a purely anatomical or physiological nature in relation to non-Jews. They have their origin in the past history of the Jews, in their habits of life, and in the fact that syphilis and alcoholism have but rarely been seen among them.

IX. Where the Jew is commingling with his Christian neighbors and adopts their customs and habits of life, he sooner or later loses his "racial characteristics," and his comparative pathology presents no special peculiarities.

Disinfection from a Purely Practical Point of View; Its Efficiency a Problem for Solution.

Concerning this important subject John J. Archinard, in the New Orleans Medical and Surgical Journal, draws the following conclusions:

I. Sulphur dioxide being a disinfectant of low efficiency and worse still a destroyer of dyes, whilst utterly impracticable for thorough application, should be discarded at once.

II. Formaldehyde on the contrary is an agent of a great penetration and high disinfectant efficiency though practically harmless to colors and fabrics. Apparatuses are now being made for disinfecting rooms and contents by means of simple, cheap, harmless and easily managed methods of rapidly generating this gas. Therefore the immediate adoption of formaldehyde is much to be desired.

III. Bichloride of mercury recommends itself as a handy and efficient means of treating washable fabrics.

IV. Sprinkling with 20 per cent. solution of formalin and keeping in closed containers for 24 hours enables us to dispose of woolen and other wearing apparels not amenable to treatment by method III.

V. Chlorinated lime is our best method for disinfection of excreta, privy vaults, yards, drains, etc.

VI. Incineration is the best method of disposing of substances of no intrinsic value, such as rags containing dejecta, etc.

Diseases in Schools, and Medical Inspection.

The preservation of the health of a child during the immature period of life is absolutely essential to its normal development in body and mind. E. V. Silner emphasizes this fact in the Medical Age where he says:

Physicians attending solely to the disea

ses of children have stated that they believe seven-eights of the contagious diseases in children were contracted in school. I have often found, when called upon to attend some child suffering with some form of contagious disease, that in many cases a child in the next seat had previosly been absent on account of some sickness, and have not been surprised to learn that that child had had the same disease and was absent but three or four weeks. In one instance my patient told me that "the little girl's hands looked as though the skin was all coming off." In another family, where I found three children with wooping-cough, the mother told me that the "children of such and such a family had whooping-cough, but were attending the same school daily."

The diseases that most frequently spread in schools are: diptheria, scarlet fever, measels, whooping-cough, chicken-pox—and smallpox.

When one thinks of these diseases, he can hardly believe that a fully developed contagious disease could remain among forty or fifty children any length of time without being discovered- Yet this is so.

The period of incubation is so insidious, and an ambitious child so often conceals his ills, that children are often found in crowded class-rooms with a beginning diphtheria, a mild scarlet rash, or an innocent cough which rapidly develops into whooping-cough. Again, children are often seen with their throats tied up, and an examination frequently shows the diphtheria bacilli.

Scabies, ringworm, and pediculosis are frequently found in large city schools. There are three sourccs of danger from these cases ·

1. Being in school during the inception and development of the diseases.

2. Returning to school too early in the convalescence.

3. In attendance in school during a light and overlooked attack of contgious diseases. (The first and third might perhaps be thought of as one.

Drug Habits and Their Treatment.

The detrimental effects of the use of alcohol will be an everlasting theme for all professions to discuss. The evil effects of its use is pictured daily to the youthful mind and yet there is as much drank and used to-day as ever before. In a very pleasing article in The Medical Standard, by T. D. Crothers, upon this subject, he says:

Of all the drugs used either medicinally or as beverages, alcohol seems to be the most destructive. In recent times this fact is becoming more and more apparent in science studies. All the recent text-books on the practice of medicins recognize the dangers from the use of alcohol, and its influences as a contributory cause in many of the organic diseases of the body and brain. The modern clinician inquires into the history of the use of alcohol, either moderately or immoderately, and this fact is important in a knowledge and treatment of the cause. Next to syphilis, alcohol is one of the most potent poisons in the causation of disease. In the neuroses, alcohol is very prominent as an active or contributory cause. The various palsies, mental derangements, and disturbances of nutrition and circulation and obscure organic affections, are always better understood when all alcoholic causation is eliminated. In pneumonia, the prognosis is very different where there is no history of the use of alcohol. In surgical treatment the fact of the use of alcohol complicates the results. While alcohol is still used as a medicine in many instances, its influence as a cause of disease, both active, predisposing and contributory, is becoming more and more prominent. Recent researches show that alcohol has a peculiar, corroding action on the cell and tissue. It is not only a toxin but produces toxins which are chemical and physical poisons. Every new advance in the chemic, physiologic, pathologic and psychologic fields brings out this fact of the danger of alcohol either in moderation or in excess. The increasing number of cases which becomes disabled and degenerate in almost every community from the use of alcohol suggests something more than moral lapses and sinful weakness.

Compound Fractures.

Inglas C. Moriarta, in American Medicine, concludes an able article on this subject in the following words:

I earnestly urge that in compound fractures, when the pathologic condition is not positively determined, that the puncture or laceration be enlarged, the bone fully exposed, approximated and held there, if you are sure of your technic and the patient's condition does not contraindicate it. I am sure that the dangers of such procedure are nil, while its advantages may save a life or limb; that the results are more perfect and quicker; and that many unsatisfactory secondary operations may be avoided.

Diseases and Disorders of the Heart and Arteries in Middle and Advanced Life

The causes of cardio vascular diseases of the second half of life is often complex.

J. Mitchell Bruce says in the Medical Press and Circular that syphilis appears to account for a very considerable proportion of the more serious cases of heart disease which we meet with in older subjects, of course, excluding chronic valvular diseases originating remotely in endocarditis; but I ought to repeat here, what I have already mentioned, that syphilis as a cause of cardio-vascular lesions is very often associated with other morbific influences, particularly strain and alcohol. Of its position as the principal cause of serious diseases of the valves as distinguished from the walls of the heart originating in middle life there can be no question. No fewer than nine out of twenty-eight of which I have private notes were the subjects of double aortic disease; practically all the others had a loud ringing second sound over the aorta significant of degeneration; pain of anginal type in half the cases was the prominent complaint; and two thirds of the subjects had sclerosis of the radial artery. When we consider that syphilis does also effect the myocardium primarily, that fibroid disease, chronic aneurysm and fatty degeneration of the heart are all treaceable to specific disease of the coronaries in many instances; and, finally, that many of the subjects of syphilitic cardio-vascular disease have perished before forty, the magnitude of this cause can be fully realized.

Demonstration of Widal's Reaction in Typhoid Fever.

This interesting and valuable test is given in the Pacific Coast Journal by Frank A. Watkins, and the chief points which it is essential to observe are:

1. The typhoid culture must be in a suitable condition; this is best effected by making the stock culture on agaragar, and keeping it at 37 deg C.; and this must be renewed once a month. When the test is to be applied, a loopful of the culture on the agar is planted in a tube of sterilized bouillion and placed in the incubator for eighteen hours. At the end of that time a drop is examined under the microscope, to see whether the bacilli are active and that no clumping is present.

The serum should be carfully diluted at least one in twenty before the culture is brought into contact with it. If the reaction is obtained with serum of this strength you may be sure that ninety-nine times out of a hundred the serum has been obtained from a patient who has been attacked with enteric fever. The 1 per cent. is allowed for errors in *technique*, and also because it has been reported that serum obtained from cases of abdominal typhus has given the reaction. It is a question whether these causes are not a mixed infection of typhoid bacilli, with some other organisms.

3. The time limit for the clumping to take place should be one hour.

4. Always remember that the reaction may be due, not to the present disease, but to a previous attack of typoid fever. The length of time that the reaction can be obtained after an attack of typhoid is very variable. Widal has reported a case in which he obtained it twenty-six years afterward.

5. The reaction might be obtained as early as the third or fourth day of the fever; more often not until the eigth to the thirteenth day; sometimes it is obtainable only once or twice during the whole course of the diease: consequently if the reaction is not obtained at first, frequent subsequent examinations should be made.

6. Three per cent. of all cases of typhoid fever never give the reaction.

Clinically, the reaction is of an equal diagnostic value to the presence of the charteristic rash.

The Duration of Life.

This is a very important subject to mankind. We are want to live on the earth God has given us just as long as possible, and any thing that offers the possibility of a hope in extending our days we readily accept. There appears a very interesting article in the Alabama Medical Journal by R. C. Brankston on the duration of life in which he says:

Of all things created, man is the most valuable, endowed with intelligence, alone gifted with the cardinal powers Reason, Will, Judgment and Volition, which makes him superior to all else. Yet nothing is so abusive to self; nor more wasteful to the energies and force of life or more indifferent to duration, which makes us think that living is a science, the completeness of which is unknown. It is easy to theorize and soar in platitudinous generalities and philosophize with superficial incorrectness, predicting possibilities without idea or reason for expecting result from their proposal. Yet, I believe pathology will be relieved and physiology of health applied eventually, which will give a duration equal to all prediction. All biologic effort and research aim to culminate in a unity of perfection hitherto thought unattainable. Where vitality turned into prescience of ideal anthropology may endure in full vigor for several decades, giving a normal duration, greater than our prognosis. By study and

adoption of natural laws, by carefully eliminating diseases and guarding against accidents, by restricting abuses and perfecting principles of vital resistance. In the course of a few generations we shall have cultivated a vitality which would give us invariably at birth, an expectancy of 130 years, which age would be usual and except for unavoidable accident would never be underlived, but generally exceeded. So vital will mankind become when common laws of health and longevity are intelligently observed.

By pursuing a rational course of elimination, we can weed out the imperfect and degenerate elements of life within five or six generations. Then the most optimistic hope and prediction which could be anticipated on this subject would be realized and health, perfectibility and duration so much improved as to be far beyond comparative present thought. I do not mean an existence filled with years of decrepitude, but vitality and mental power should be active and competent until near the end, which should transpire without a long period of waste and suffering, nor through any sudden break, but one should feel the call of nature, should know that force is ceasing. He should seek his couch, and in the language of some old writer, should wrap his mantle about him and be gathered unto his fathers.

The Early Diagnosis of Ectopic Gestation.

Andrew F. Currier says, in the New York Medical Journal, that by all odds the most important and most convincing of the extrarodinary signs is hemorrhage.

Seldom is the bleeding external or manifest; it would be unreasonable to expect that such would be the case, for the tension of the pelvic current is reduced to a minimum by the outflow from the ruptured vessels. Hemorrhage is most likely to occur, and occur most early, in those cases in which the seat of gestation is the fimbriated extremity of the tube. It is least likely to occur when the oval sac is near the middle of the tube. The abundant blood supply of the broad ligament, tube, and ovary, and the comparative absence of contractility of the loose and delicate tissue in which the vessels are located, explain the profuseness of the hemorrhages and their frequency. I have seen the belly filled with blood and hemorrhage still in progress, though the patient had already been in a state of collapse and had rallied from it. A fœtal sac at the fimbriated end of the tube seldom progresses to the end of the first month without rupture, and, from the nature of the case, the hemorrhage is frequently fatal. This is sometimes due to the fact that the comparative absence of a tumor misleads the physician as to the gravity of the case, and he temporizes until the time for effective surgical intervention is passed.

Blood Supply to the Pelvis,

Three things particularly interest us in the blood supply to the pelvis, so says Franklin H. Martin, in the Journal of the American Medical Association.

1. The arterial supply to the pelvic organs is derived from widely separated points, and it is provided with the freest anastomoses. This appears to be a wise provision to guard against the possibility of depriving the important organs of the pelvis of blood, as a result of a simple accident to any of the parts. For instance, one-third of the blood-supply to the uterus passes through the spermatic or ovarian arteries which spring directly from the abdominal aorta and travel a long distance before reaching the organs they supply, while two-thirds of the blood-supply arrives through the uterine arteries from the internal iliac vessels.

2. The veins of the uterus contain no valves.

3. The left spermatic or ovarian vein enters the general circulation at a disadvantage, as it enters the left renal vein at right angles, while the right spermatic vein enters directly the vena cava at an advantageous angle. This fact has a practical bearing, as it partly accounts, no doubt, for the fact that the left appendages are more often diseased than the right.

Normal Menstruation.

In reference to normal menstruation, Geo. J. Engelmann, in an article in the American Journal of Surgery and Gynecology, says

The menstrual period proper is characterized by an intensification of all vital energies followed by a depression, which appears with the coming of the flow, and this latter is the phase ordinarily termed "menstruation;" under ideal conditions and in perfect health, the physiological status is such that this epoch, preceded by a day or two of heightened activity, is marked by a moderate lassitude, mental and physical, the flow persisting for from four to five days and recurring at regular intervals of about 28 days. It is a period of heightened susceptibility, and so sensitive a barometer that it quickly records any variation from the normal; excitement or fatigue, mental or physical, are promptly indicated

by variation in this function, and in our everyday life such disturbing elements constantly occur, so that conditions actually existing vary greatly from this ideal.

The average period of the American girl in average health presents very different features; regularity in 50 per cent. only, recurrence every 28 days in 30 per cent., varying most frequently from 26 to 42 days, 45 per cent. being over 28; duration varies from 2 to 7 days, averaging 4.6.; from 66 to 70 per cent. suffer more or less, the number of sufferers varying, according to age and intensity of occupation, between 30 and 90 per cent. Lessened ability for exertion, mental or physical, is admitted by 60 per cent., some few are habitually incapacitated for work, and 30 per cent. occasionally.

The functional condition of the girl, in good health, under normal conditions of life is by no means the ideal one, and, in fact, the functional health of the American girl, the coming mother of American men, is far from what it should be by right of inheritance and surrounding. This fact we must recognize, we must face; upon physicians and educators devolves the duty of study and correction of the evil.

The Differential Diagnosis of Ectopic Pregnancy.

Hiram N. Vineberg, in the Journal of the Americal Medical Association, emphasizes the following points in concluding his article on this subject:

1. The frequency with which ectopic gestation is diagnosticated as early uterine abortion. 2. The advisability of looking with suspicion upon every case presenting apparently the symptoms of early uterine abortion, and if the case is not running a simple and natural course, to fully anesthetize the patient for a rigid examination and for the proper performance of curettage in the event of ureterine abortion being present. 3. If after carring out this plan there still be some doubt, the advisability of making a posterior vaginal exploratory incision to determine the presence or absence of blood in the peritoneal cavity and to be prepared to open the abdomen if the condition found calls for it. 4. The unreliability of the so-called pathognomonic signs or symptoms of ectopic gestation.

The Exclusion and Elimination of Pathogenic Bacteria from Sewage.

Concerning this subject the British Medical Journal has a lengthy article with the following conclusions:

1. The lines of defence which protect us from invasion by sewageborne disease germs are defective and uncertain. Consequently it is constantly necessary to strengthen these defences by all means in our power.

2. The presence of disease germs in sewage and the possibility of their surviving the various processes for sewage purification cannot be ignored.

3. We are ignorant with regard to the fate of these germs before, during, and after the processes of purification, and can only say that so far as the evidence hitherto acquired shows anything, it tends to prove that the disease germs are not necessarily destroyed by the purification processes.

4. It is imperative that investigations (similar to those described above) should be continued, developed, and applied to the various systems of purification by precipitation, by "bacterial beds," etc., and by land filtration and irrigation.

5. Any effluent which has been so far purified that it is free from putrescible matter aud incapable of giving rise to offensive nuisance must still be regarded as incapable of giving rise to disease until it has been shown that the disease germs have been eliminated from it.

Phelps' Operation for Club Foot with Report of 1,650 Operations.

The well known orthopœdic surgeon, A. M. Phelps, in American Medicine, in a very able article, points out the following conclusions in reference to operation for club foot:

1. All feet at any age after the fourth month, with shortened skin and ligaments, should be operated upon by open incision.

2. Prolonged medical treatment covering over months and years in any case is wrong.

3. While I am prepared to admit that many of such cases can be benefited or cured, the surest and easiest plan for the patient is to operate.

4. The operation is not completed until the foot is placed in the supercorrected position flexed upon the leg and the heel prominent so that it strikes the ground in walking before the anterior segment of the foot does. Such feet will take the weight of the body in such a direction as to turn them still further outward and prevent relapse.

5. Clubfoot shoes of every name and nature I have entirely discarded. The human hand is the best clubfoot shoe ever devised, and by manipulation the foot is carried to the supercorrected position and fixed there with a plaster-of-paris shoe or adhesive plaster.

6. The treatment just begins after the operation is completed.

7. Osteoclasis should be performed in all cases of inward twist of the tibia or a relapse may be looked for.

8. Bone operations should never be performed primarily.

9. Open incision should supplement all cases of subcutaneous tenotomy when it fails to supercorrect.

10. Short tendons and ligaments should be cut and not stretched, because prolonged stretching results in deformity of the entire tarsus.

11. A case cannot be said to be cured and free from the dangers of relapse until the heel strikes the ground first in walking.

12. A cure is effected when new facets are formed on the tarsal bones.

13. Pirogoff's amputation was required in $\frac{1}{4}$ of 1 per cent. in my series of cases.

14. Open incision should nerver be performed unless the skin resist and will not stretch sufficiently to allow of supercorrection and the proper unfolding of the foot.

15. The weight of the body falling upon any clubfoot shoe or brace nullifies the action of the apparatus. This was the reason why the late Mr. Adams treated one foot at a time with his shoe, putting the patient on crutches until the foot was cured.

Mortality of Dysentery.

W. J. Buchanan, in the British Medical Journal, says:

As regards the mortality of dysentery, the figures quoted in all recent text-books are somewhat misleading. The death-rate for natives from dysentery is given usually at from 30 to 37 per cent. These figures are based upon cases admitted in an advanced state into public hospitals, many of them having previously suffered from the disease. In the past few years over 60,000 cases of dysentery have been treated in all the gaols of India with a mortality of only 7 per cent., which is the same ratio as given by Scheube for the dysentery of the Further East. The very favorable rate of just over 1 per cent. for the above 855 cases represents the saline treatment of cases of acute dysentery promptly and immediately treated as indoor patients in a hospital.

The Genesis of Uric Acid.

R. H. Chrittenden writing in the Brooklyn Medical Journal closes a very able article upon the genesis of uric acid in the following words:

Finally we see that there is no causal relationship whatever between the daily urea and uric acid output. They come from totally different lines of metabolism; they stand for totally distinct chemico-physiological processes, and hence any attempt to emphasize the so-called ratio of urea to uric acid in the urine is misleading, and shows, furthermore, a lack of understanding of the true genesis of these two excretory products. Between uric acid and ordinary proteid metabolism there is no connection whatever. With a purely non-nitrogenous diet, on the one hand, and a diet rich in eggs, milk and cheese, on the other, with perhaps a maximum amount of contained proteid, the output of uric acid remains practically unchanged. The genesis of uric acid is to be found solely in metabolism of the tissue nucleins (endogenovs) and in the transformation of the nucleins and free purin bases of the ingested goods (exogenous).

Medical Treatment of Actinomycosis.

The following well-drawn conclusions are given by J. S. Sawyers, in a communication in the Journal of the Medical Association:

1. That actinomycosis is not an uncommon disease. 2. That, where pure, it is a non-suppurative, afebrile, comparatively painless, slow-progressing disease. 3. That the clinical signs and symptoms are often pathognomonic. 4. That the club-shaped bodies, single and in asters, are often absent, the threads more frequently present, and the coccus-like bodies most constantly present. 5. That iodid of potash give the best results. 6. That iodid of potash administered interally cures a large percentage of cases. And, finally, that the interstitial injection of iodid of potash into the infected tissues exerts a strikingly salutary influence over the disease.

Recent Progress in Neurology.

Philip Coombs Knapp, in an article in the Surgical Journal, says: "Parinaud has studied the ocular troubles of hysteria. One of the most distinctive characteristics of hysterical amblyopia is its association with contracture of accommodation, which may determine other symptoms, such a monocular polyopia and micromegalopsia. A concentric limitation of the visual field is one of the most important features of hysterical amblyopia. When this is slight, we must also look for distubances of accommodation to determine the existence of amblyopia. When central vision is also involved, there may be complete blindness, as great as that due to optic atrophy. The visual field is

apt to be more contracted after an hysterical attack, and its extent may sometimes be modified by influencing the accommodation either by lenses or atropine. It may also be greater with moderate illumination than under a bright light, owing to the influence of accommodation. Cutaneous irritation, unless applied to an anesthetic area, may enlarge the visual field. In order to prove the existence of dyschromatopsia from contraction of the visual field alone, the contraction for white must be very marked. The perception of red is the last to be affected in hysterical dyschromatopsia, while it is the first to be affected in dyschromatopsia from tabes or alcohol. The field for red is sometimes greater in hysterical amblyopia that the field for white. Hysterical central scotoma is occasionally, though rarely, found. The acuteness of vision is rarely much diminished, although it is often better in a moderate light than in a bright light. Diplopia is always due to a disturbance of refraction. Even in absolute amaurosis the pupils still react to light. The ocular movements are usually well performed in spite of anesthesia of the conjunctiva and the cornea and the absence of the oculo-palpebral reflex. The lachrymal reflex is often preserved. There is never hemianopsia, and hysterical amblyopia is never attended with changes in the fundus of the eye, unless there be coexisting organic disease of the brain."

The Physiologic Care of Colds.

The care of a cold should be as sytematically treated as any other disease. Chas. H. Shepard, in the Journal of the American Medical Association, says:

In looking for the cause of colds, or any other disease, it is well to consider the first cause, rather than the merely exciting or secondary one, which is only incidental to the disturbance. By doing this we can shape our life so as to avoid most of the disasters common to modern civilization. Ignorance of the law of life, and of man's relation thereto makes of him a slave, while knowledge of these laws gives him freedom to instantly accept and enjoy the fruits of obedience.

The invariable cause of colds come from within, not without. No one takes colds when in a good vigorous state of health, with pure blood coursing through his body, and there is no good reason why any one in ordinary health should have a cold. It may come from insufficient exercise, breathing of foul air, want of wholesome food, excess of food, lack of bathing, etc., but always from some violation of the plain laws of health.

There can be no more prolific cause of colds than highly-seasoned feeds, as well as frequent eating. These give no time for the digestion organs to rest, and incite an increased flow of the digestive secretions. Thus large quantities of nourishment are absorbed than can be properly utilized, and result in an obtruction, commonly called a "cold," which is simply an effort of the system to expel the useless material. Properly speaking, it is self-poisoning, due to an incapability of the organism to regulate and compensate for the disturbance.

Special Analgesia.

William Seamon Bainvidge reports a summary of fifty cases in the Medical News, and as to the use of cocaine he gives out the following conclusions:

1. Cocaine is far more satisfactory than eucain. The latter is less potent, more evanescent, the areas of analgesia are frequently "patchy," having the pain sense retained all around them and not being so complete below definite levels. The cocaine produces no more unpleasant after-effects than eucain and is decidedly more reliable.

2. Analgesia to the level of the diaphragm can be depended upon in all cases where a moderate dose of a potent solution of cocaine has been introduced by lumbar puncture. In some the analgesia is sufficient for operation on the upper extremities.

3. Complete analgesia, including the eyes, mouth and throat has occurred. It does not entail more severe after-effects than when the lower extremities only are involved.

4. The preparation of the patient as for a general anesthetic diminishes all the unpleasant effects of cocaine and eucain and often prevents them altogether.

5. By moderate doses of bromides before the injection the initial vomiting is frequently avoided and the liability of headache lessened.

6. In neurotic patients there are often hysterical symptoms directly following the completion of the injection but, as a rule, in a few moments a calm follows and the patient lies perfectly still.

7. Initial nausea and vomiting often occur soon after the puncture, but last only for a moment or two, and usually do not recur during the operation. As consciousness, as well as the muscular power, is preserved, the danger of the introduction of the vomitus into the lungs is practically *nil*.

8. Analgesia lasts from thirty minutes to four hours.

9. Depression after the puncture is inconsiderable. The use of ethyl chloride (Bengue) largely prevents pain when the needle is introduced.

10. The preparation of the patient, the use of nitroglycerin by hypodermatic injection, or the employment of coal tar products with caffeine, control the headache, which is in many instances an after-effect of spinal puncture.

11. In a few cases there may be motor paraplegia or vertigo. Both are temporary.

12. Spinal puncture has not affected normal or diseased kidneys.

13. Usually the tactile power, muscular sense, and the ability to detect heat and cold are retained. The cautery at a dull red heat causes no pain, while hot waters produces marked discomfort.

14. Uusually the patient sleeps the first night.

15. There is often a temperature of a few degrees within eight or ten hours of the operation. Whether this is the direct result of the puncture or the effect of psychic disturbances is not determined. The circulation and respiration are not seriously embarassed.

The Study of Internal Medicine.

Dr. William Osler gives the young physician some splendid advice in an article in the Medical News. In his language he says:

To any young man who is just starting the practice of medicine in a town, say of 40,000 to 50,000 inhabitants, and whose ambition it is to work up a consultant practice, I would say, "If you have brains and staying powers and can avoid entanglements you will probably succeed; but to do so you must make your position by hard work, courteous manners and a close study of human nature. Say to those that ask that you intend to practice medicine only and will not take surgical and obstetrical cases. If you have an opportunity to work in a dispensary or to do any teaching, take the opportunity gladly and give full measure. Your services may be of help in the local hospital. A little blood work or pathological or microscopical examinations, if done voluntarily in a modest grateful spirit, may win you an opening to assist some of the house physicians in his ward work, but in this case be careful that you do not scintillate before the staff in the glory of your recently-acquired knowledge. It will be enough to be in the right occasionally without calling attention to the fact. Get your own little clinical laboratory in order and do not try to impress the physicians who call upon you with your very up-to-date equipment. Remember that they have brought a generation into the world and kept it in health, they have staunch friends and rich patients and are ready to take you into their fraternity if you are civil and modest. Join the city and county societies and never miss a meeting, but keep your mouth shut for a few years, particularly in the discussions; read the journals, but do not discuss the new books before you are grounded in the old ones.

At the end of twenty years, when about 45 years of age, the man who has worked wisely and well should have a first-class reputation in the profession and a large circle of friends and patients. He will probably have precious little capital in the bank, but a very large accumulation of interest-bearing funds in his brain pan. He will have gathered a stock of special knowledge which his friends in the profession appreciate, and they will begin to seek his counsel in doubtful cases and gradually to lean upon him in times of trial. He may awake some day, perhaps quite suddenly, to find that twenty years of quiet work, done for the love of it, has a very solid value.

When and What to Eat.

Boardman Reed, according to the Journal of the American Medical Association, sums up an article on this subject as follows:

We should never advise our patients to "eat everything" until we have thoroughly cured their diseased digestive organs and freed them from the lithemic condition; and powerful as are our modern weapons against these, we cannot often succeed in accomplishing such a radical cure until the patients have reformed their unhygienic habits, not only in their eating and drinking, but also in both their work and play. They must learn self-denial and at least the rudiments of the immutable laws of heath and, having learned, obey them. They must take into their stomachs, in approximately right proportion, the things that will nourish and strengthen them, and little or none of those whose chief effect is to derange or irritate the functions or tissues of the body. In many cases, besides, they must give up sedentary employment or pleasures and take regularly, every day, an adequate amount of exercise out of doors. In short, oxygenation must be made to bear its proper ratio to alimentation.

Nor should we advise even the well persons in the families under our charge to "eat everything," without some regard to their idiosyncrasies and tendencies, as well as a reasonable amount of care that they do

not follow a harmful acquired taste for too much of the rich and complicated viands or such an undue proportion of nitrogenous food as would make patients of them a few years later, by setting up gradually insidious forms of chronic disease which would inevitably result, at a relatively early period of their lives, in gout or rheumatism, or in others more serious and fatal organic affections.

The Widal Reaction in Typhoid Fever.

Geo. B. Shattuck, in analysizing 125 cases of typhoid fever, in the Boston Medical and Surgical Journal, in which the Widal Test had been used, the conclusions drawn from these cases were as follows:

1. The serum reaction may be obtained toward the end of the first week of typhoid fever, but is both more pronounced and more usual later in the disease.

2. It may be present without a relapse at the end of the fourth month.

3. It may be absent one day and present the next.

4. Of 125 cases of typhoid fever (clinical) the reaction was absent in only one case. In two cases it failed, but there was in each only 1 test, in 1 case on the twelfth and in the other on the eighty-second day.

5. In 19 cases of other diseases clearly uncomplicated by typhoid there was no reaction.

6. In 1 case, where the diagnosis must remain doubtful, although typhoid cannot be positively excluded, there was a reaction.

7. In a number of difficult and perplexing cases the serum test was of distinct service in establishing or correcting the diagnosis.

8. This test will probably prove itself a useful aid to clinical diagnosis, and especially in hospital practice.

The Ideal Nurse.

The ideal nurse is prettily pictured in The Trained Nurse and Hospital Review by D. F. Thomas, in which he says:

Professional nursing has its limitations. Always remember that you are acting under orders from the physician, who has sufficient confidence in your ability to engage you to thoroughly and intelligently carry out his instructions. Just as soon as you attempt to overstep these limitations you are usurping rights that do not belong to you. Confine yourself, therefore, to the real profession of nursing, if you would succeed, for as soon as you overstep the boundary of your prerogative, your fate is sealed.

Noise as a Factor in Disease.

D. A.MacLachlan writing in the American Medical Monthly says among the causes of deafness hereditary predisposition plays an important part.

Among the causes of deafness hereditary predisposition plays an important part. It is well known that deafness is hereditary in many families, so that part or all of them are ultimately afflicted with it. It may not alway apply to the immediate descendants; indeed it is likely more often to occur in some generation. "One swallow does not make a summer," so one, two or three cases occuring in a family, does not positively indicate hereditary predisposition as the cause; but when several members of the same family, whose ancestors have been afflicted by ear affections, have developed diseases of the ear and deafness without other demonstrable cause, it seems fair to attribute it to hereditary tendencies. This inherited tendency to deafness no doubt accounts for many cases of bad results following injuries, and predisposes to injury from noises of any sort; even sligh detonation may cause serious injury to the ears of such persons, while a healthy ear under the same circumstances would escape injury. Constant noises would also affect the ears of such persons more certainly, mor quickly' and more profoundly than they would the ears of persons not so predisposed.

The Food Value of Alcohol.

A statement, no matter how false, gains a certain amount of credence by iteratim. John Madden, writing in the American Medicine, says:

Indeed, science literature has many propositions which would not bear investigation because they rest upon statements not at all or only partly, proved, which have been passed on from writer to writer until they seem to be entitled to their places in science. Such a statement is that which declares that alcohol is, in its behavior in the body, like the carbohydrates and fats. Inquiry into this subject will show that there are many more points of dissimilarity than similarity existing between them.

1. The fats and carbohydrates are not poisonous in any quantity; alcohol, on the other hand, is a violent protoplasm poison.

2. The fats and carbohydrates are capable of being changed into a reserve supply of fat which is deposited chiefly beneath the skin and constitutes a store of latent energy upon which the organism calls whenever stress of circumstances makes increased expenditure of energy necessary. Alcohol cannot be thus converted and stored.

3. The carbohydrates and fats protect the nitrogenous tissues from undue waste. Alcohol hastens their waste.

4. The oxidation of the carbohydrates and fats proceeds in such a manner that all the oxygen necessary for their conversion is supplied by the normal process of respiration. Alcohol, on the other hand, makes a demand for oxgen so great that it cannot be supplied by the normal process of respiration. Oxygen to supply this demand is, therefore, abstracted from the tissue, causing a derangement in their functions and metabolism.

5. All tissue activity is immediately accelerated by the ingestion of a real food. The ingestion of alcohol is followed by a partial or incomplete inhibition of both glandular and muscular activity, as well as a marked diminution in the quality of the mental processes.

Instructions for the Treatment of Plague with Prof. Lustig's Curative Serum.

The following instructions are laid down by Prof. Lustig in the Indian Lancet for the treatment of plague:

I. The Serum.

1. Each phial contains 20 C.C.

2. No antiseptic is added to the serum.

3. The presence of coagulum, flakes or blood, is no contra-indication to its use.

II. The Syringe.

1. The syringe and needles should be boiled before injection and washed out with 3 per cent. carbolic lotion after use. They should be kept scrupulously clean.

III. Method of Injection.

1. Injections should be made subcutaneously and on the outer side of thigh or arm, as far as practicable.

2. It is preferable not to give a second injection on the same limb till at least 48 hours after the first.

3. Cleanse the skin thoroughly with soap and water, and carbolic, sublimate, or lysol lotion before injecting.

4. After withdrawing the needle, seal up the puncture with collodium and cotton wool.

Gastrojejunostomy in Gastrectasis.

A. H. Cordier, in American Medicine, draws the following conclusions:

1. Cancer of the pylorus, even though removed, returns quickly, and always kills. Pylorectomy is attended by a high mortality and is not a justifiable surgical procedure in advanced carcinoma of the pylorus. Gastrectasis due to a malignant closure of the pylorus is best treated by a gastrojejunostomy. The operation as advised by Wolfler or Von Hacker best meets the indications.

2. It is not necessary to twist the bowel, in making the anastomosis, to prevent bile from entering the stomach.

3. The anastomotic opening in the stomach should be at the most dependent point of the dilated organ. The operation is attended by a low mortality. In all cases in which marked dilation of the stomach exists, accompanied by emaciation, pain, and invalidity, the operation of gastrojejunostomy should be performed. The relief of pain, due to the effort of the stomach to relieve itself, follows this procedure at once. The patient gains rapidly in weight, and if the disease is nonmalignant his former good health is restored.

Indications for the Cesarian Section in Placenta Previa.

In this grave condition G. M. Boyd, in Obstetrics, recommends an immediate examination under anesthesia of all suspected cases for the purpose of (1) confirming the diagnosis; (2) determining the variety of the previa; (3) the size and position of the fetus; (4) the condition of the cervix, and finally to facilitate the introduction of the cervical and vaginal tampon.

If the hemorrhage appears before the viability of the child, if the previa is marginal, the cervix dilatable, the fetal heart absent, then version or forceps may suffice.

If, however, the child is viable, the previa complete or partial, the cervix rigid, or the fetus transverse, then, in preference to other interference, the Cesarian section would seem indicated.

Indications and Limitations of the Vaginal Operation in Public Pelvic Diseases in Women.

According to American Medicine J. Riddle Goffe writes that the value and importance of myomectomy as contrasted with hysterectomy in case of fibroid tumors of the uterus has been gaining ground rapidly in connection with the general trend of consecratiom, and in every case the question presents: Shall the operation be myomectomy or hysterectomy? Quoting from a recent pape of mine upon this subject, "There are staunch advocates of myomectomy as the operation of choice, as the dominant operation in the treatment of fibroid tumors of the uterus; on the other hand, there are strong advocates of the sweeping and uncompromising dictum that

in all cases of fibroid tumors of the uterus nothing short of hysterectomy should be entertained. For myself, I believe in conservatism in all departments of gyneclogic surgery. If, in addition to saving the menstrual function by retaining ovarian tissue, there is prospect of conception, gestation, and motherhood, my rule is to save at least a portion of one tube also and preserve for it a patulous canal. If part of an ovary can be saved and the menstrual function preserved to a woman throughout he natural period, it is my custom to leave one healthy ovary or part of an ovary in case of panhysterectomy for fibroid tumor. Extending this principle to the uterus (a uterus affected with a fibroma or anumber of fibromas) the following rule holds: Remove the diseased portions, as many fibroid foci as can be discovered, but save the uterus."

In dealling with this class of cases vaginal section has its indications and also its limitations. Experience and facility of operation on the part of the operator can alone determine this question, although the location of the tumor or tumors plays a large part in its solution.

New Methods in Charity, with Better Results and at Less Cost.

Every State is at an enormous expense in the care and protection of its cripples, idiots, insane, &c. Wm. P. Spratling, in a very able paper in the Medical News, offers the following as a method of reducing the per-capita cost:

1. Prevent insanity, epilepsy, imbecility, idiocy and feeble-mindedness, as far as possible, by making it impossible for persons so afflicted to marry.

2. Build less expensive structures in which defective and dependent State charges shall live.

3. Maintain at less cost the cases that are chronic and incurable, and maintain at greater cost, to stimulate recovery, those that probably can be cured.

4. Give those that ought to have it an education that they can use, either in the institution that cares for them, that the cost of their maintenance may be lessened, or in the outer world, when they leave the institution, after the State has done its work well and turned them back into the great business current, as nearly normal men and women as science and art can recreate them.

Louisiana is to follow Pennsylvania in the establishment of tuberculosis camps in the pine woods of St. Tammany parish.

Mental Therapeutics.

Suggestion has pretty well supplanted hypnotism in the practice of physicians. John B. Huber, in the Trained Nurse and Hospital Review, says:

The art of suggesting healthful ideas is one of the most important weapons in the armamentarium of those who treat the sick. This is another way of saying that the doctor and the nurse have inspired faith in the patient. When the doctor states his conviction that such and such a symtom will disappear and that he will find the patient better to-morrow, he suggest the idia of improvement, which belief in his statement impresses upon the patien's mind. When next he declares his expectation that the patient will be able to sit up on the following day, the suggestion stimulates the latter's latent energies to the extent of realizing the expectation. When, then, he declares he will be much disappointed if he does not find the patient awaiting him in the sitting-room on the occasion of his next call, the latter is aroused by the same processes to the point of obyeying the suggestion.

The Mutual Obligation of the Medical Profession and the Public.

There appears in the Southern California Practitioner a very terse article from the pen of Geo. S. Cole. The following paragraph we quote below is worthy of mentioning.

Another duty of the public is to remember that it is their reasonable right to dismiss a physician at any time in an honorable manner, when they have lost their confidence in him. I know of a few physicians in my acquaintance who would not rather a family would come to him in a straightforward, kindly manner and say to him frankly that they would prefer to pay his bill and procure another physician than to proceed with his services when they have come to look upon his course with skepticism. The only thing that such a physician asks is to be dealt with honorably, and make it a pure, straightforward business transaction. This does not necessarily rupture the friendship existing between physician and patient, but, on the other hand, I have known instances where it has served to strengthen such a friendship, and many times it is only by such a course that a family can be convinced that the attending physician has done everything that lies in the power of man to do for the one who has been the recipient of his services.

The Origin and Use of the Appendix.

To a great many of the older class of Physicians the use of appendix still remains in the dark and appendicitis a mere myth. Upon this subject Wesley Jones Morrison, in the Western Medical Review writes interestingly.

The appendix veriformis of man is the undeveloded true cecum of some of the lower animals. In the embryologic devlopment of the human intestinal tract there is at first no cecum present, the original tract consisting of a staight tube which may be divided into three parts. Now from the middle part there springs a diverticulum, marking the division between the large and the small testines. This conical projection lengthens to form what is known afterwards as the cecum, but the terminal portion does not keep pace with the growth of the base and consequently it becomes much narrower in caliber; therefore we find the lengthened cecum of mammals has degenerated into vermiform appendix in some species. This appendage is vermiform in man and in all the manlike apes, such as the orang, gorilla, chimpanzee, etc. In man this cecal appendage is apparently a rudimentary structure which once formed an important part of the alimentary tract in the days when we needed a wisdom tooth for the crushing of palms, ferns, etc., and a large absorbing surface for extracting their scanty nutriment. Now as degenerate structures the wisdom tooth, with its insufficient calcification, and the cecal appendage perish easily when attacked by bacteria. It is the same old story of non-use. We do not need this lengthened cecum for the digestion of palms, ferns, etc.; hence it has degenerated into something worse than nothing, being simply a little blind pouch left to puzzle anatomist and scientist alike and to make them wonder at our human origin.

Operation for Radical Cure of Inguinal Hernia at the End of the Century.

Campbell Ford describes very nicely Bassini's operation for hernia in the Record, and gives the following directions for the insertions of his own sutures:

1. Single-knot stitch: The needle is passed through the divided tissues, and, without cutting the thread, a square knot is tied. For the second stitch the thread is held or thrown so that the needle will emerge in a loop, and, when it is drawn on through, a single knot will have been formed. The tension is now adjusted, and for the last stitch a square knot is tied. This may be modified by passing the thread around the needle or the needle around the thread. The tension of the stitches and between the stitches should be equal.

2. The square-knot stitch: The same steps are taken as for the single knot, and when it is formed the needle is passed under the thread connecting the knots in the opposite direction from which the needle was inserted into the tissues.

3. The friction-knot stitch: For the first stitch a square knot is tied, then the needle is passed as for a single-knot stitch, turning the thread twice around the needle instead of once. The last stitch is a square knot.

1st. With a Reverdin needle tie first as before for a single stitch, turn the thread around before inserting it; after it is inserted, thread the needle as is usually done, withdraw the needle, and the single knot will be tied. For a square knot put the needle under the thread between two knots, thread it and withdraw.

2d. An assistant may form the knots while the surgeon passes the needle.

Notes on Leukemia.

According to the Philadelphia Medical Journal Chas. S. Jewett says:

In myelocythemia or splenic-myelogenous leukemia, the characteristics of the stained specimen of blood are, according to Ehrlich and Lazarus (11), as follows:

"A. That aside from the polynuclear cells the mononuclear garnular leucocytes also appear in the circulating blood.

B. That in the increase of the white blood cells all three types of granular cells, the neutrophiles, the eosinophiles and the *Mastzellen* participate.

C. That atypical forms appear, for example, dwarf forms of the various sorts of white blood cells, also mitotic or karyokinetic figures.

D. That the blood always contains nucleated red blood cells in large numbers.

On Bandages for Nephroptosis.

Bandages for movable kidney may be divided into two general classes says Geo. M. Edebohls in the Record.

1. Simple bandages, and apparatus embodying the feature of a special kidney pad.

2. Simple bandages act by supporting the entire contents of the abdomen, sustaining and more or less immobilizing the movable kidney or kidneys on top of the intestinal mass.

3. All the relief to be gotten from bandages in cases of movable kidney, is obtainable from one of two devices, either from an elastic bandage, encircling and sustain-

ing well the lower two-thirds of the abdomen, or from a long and low-reaching corset, fitted and adjusted with the same end in view.

4. The relief obtainable from bandages in any case of movable kidney will depend upon the presence and the degree of any associated enteroptosis. The greater the degree of associated general enteroptosis the better the prospects of relief from a bandage or corset. When movable kidney exists without general enteroptosis, no form of apparatus will prove satisfactory.

5. All forms of apparatus with special kidney pads or tissues are to be absolutely rejected because they are important to fix and sustain a movable kidney, and because any pressure they may exercise is injurious to either the kidney or to neighboring organs, especially the veriform appendix, or to both.

6. In all cases which relief of symptoms cannot be obtained from either a proper simple bandage or corset, nephropexy is indicated.

Points Connected with the General Etiology and Pathogenesis of Diabetes Mellitus.

Just at this season there seems to be more cases of this disease than has appeared at any other time during the year. Stern in the Philadelphia Medical Journal for clinical purposes ascribes the various glycosurias to one or more of the following causes:

1. To excessive ingestion of carbohydrates—alimentary glycosuria.

2. To diminution, or functional disturbance, or excessive or abnormal disintegration of the erythrocytes:—glycosurias following the introduction of poisons and toxines, or the perverted function or removal of certain glands and organs—hematogenic glycosuria. (Pancreatic diabetes—Seegen's grave diabetes).

3. To traumatism—neurogenic glycosuria.

4. To interference with the glycogenic function of the liver to the extent that the ingested carbohydrates are not utilized normally—common or hepatogenic diabetes.

5. To a general protoplasmic deterioration and plasmolysis—diabetic deterioration.

Physician's Incomes.

The editorial writer, in the New Orleans Medical and Surgical Journal, states that there are several evident and glaring reasons for the present status of the doctor's income which have evident remedy.

1st. The physician himself, underestimates the value of his services and thereby creates the lowered estimate of the patient himself. Except in occasional rural communities no endeavor has ever been made to regulate uniformity in charges for well defined services. The very existence of competition creates the false idea that practice is more lucrative when prices are a matter of comparison and that by charging less than another man one physician betters himself.

2d. The abuse of the doctor's knowledge and training by the multitude of the quasi-poor, who are unscrupulous in obtaining advice under false pretences, because the negligence and carelessness of the average physician seldom demand the legal protection redress.

3d. The competition of free hospital and dispensary services, ostensibly organized for the poor, but really providing an effectual opportunity to the undeserving to obtain medical advice for what they are able and for which they should be made to pay. Oftentimes these institutions serve no other purpose than a political end, occupying in the community a false position as dispensers of charity.

4th. The vast number of irregular colleges, duly legalized, with unqualiffed faculties, without any standard of graduation, organized for pecuniary gain, which sent out into the field of medical practice a horde of men either ignorant of the needs of the profession or unscrupulous in their lack of knowledge. From the ranks of such are recruited the charlatans who infest every community, urban or provincial.

5th. There is a sad lack of legislative control of medical practice. In some States there is none, and in those States where laws do exist, every loophole for circumvention of the law is availed of. A wrongful competition which in any other occupation, professional or commercial, falls and must fall, for its evident saturation with methods of dishonesty and deceit.

6th. Well bred medical men hesitate to take the stand for their own defense and rights, lest they may be misunderstood by some of their own kind. A conservatism in method is created which is based on false ethics and which bears only such fruit as disappointment, absence of appreciation, and even disparagement.

Some General Remarks on Electricity in Gynecology.

Electricity has many advocates. G. Belton Massey, in the International Medical Magazine, says:

When there is ovarian tenderness, or in-

termenstrual pains in the pelvic organs, which may be said to be a form of secondary developmental fault, the proper form of electric treatment is strictly vagino-abdominal and not intrauterine. Forty or fifty milliamperes should be used if post-inflammatory conditions are suspected, and the fine wire faradic current in combination (following the galvanic in the same sitting) or alone, in any case. The treatment may take time and patience, but it will save ovaries and restore patients to their normal health.

The Physiological Relations of Scopolia Carniolica to Atropa Belladonna.

Quite a nice comparison is drawn between scopolia carniolica and belladonna atropa by Horatio C. Wood, Jr., in the Therapeutic Gazette in which he draws the following conclusions:

Scopolia Carniolica in its physiological action so closely resembles Atropa Belladonna as to be practically indistingusihable. Like belladonna, scopolia elevates the blood-pressure, paralyzes the pneumogastric nerve, is primarily a stimulant of the respiratory center, and in fatal dose kills by asphyxia. In the frog it is a paralyzant to the spinal cord and to Setschenow's center, and when brought in direct contact with a motor nerve lessens its function. The dominant alkaloids of the two plants, however, are probably not identical, since we find the scopolia apparently a little more depressant to the spinal cord, and distinctly more toxic.

Placenta Prævia—Treatment.

According to the British Medical Journal the often fatal results and always the gravity of the situation and the alarming symptoms arising from "placenta prævia" places it prominently among the most important and serious condition to be treated. A very practical line of treatment is expressed by R. P. Rankin in the British Medical Jourdal April 6, in the following manner.

A careful study of the circumstances influencing the prognosis on behalf of the mother would serve as a valuable indication as to the line of treatment to be adopted in each individual case, and in addition a close consideration of the different conditions which may exist. The conditions which should guide us as to treatment are:

1. Complete or incomplete placenta prævia.
2. The nature of the presentation.
3. Whether labour be absent or present.
4. The character of the pains and the size of the os uteri.
5. Whether the membranes are ruptured or not.

For purposes of treatment, most cases of placenta prævia may be divided into three classes as follows:

First, cases of incomplete placenta prævia, in which the first stage of labour is fairly well advanced: rupture of the membranes and the application of a tight abdominal binder will usually be found sufficient treatment, but in a rare case this treatment may not check the hæmorrhage, when version (if necessary) should be performed, and a foot brought down, leaving the subsequent delivery to Nature, with the exception, of course, of slight traction of the foot should hæmorrhage continue.

Secondly, cases complete or incomplete placenta prævia, in which the os uteri is sufficiently dilated to admit two fingers. It is in the treatment of these cases that so much difference of opinion exists, some recommending the rapid evacuation of the uterus of its contents, irrespective of the injury which may be done to the mother's soft parts, and indeed of the risk to the patient's life; while others recommend the separation of the placenta from the uterine wall with the finger, a proceeding which many consider not only fatal to the child, but extremely dangerous to the mother, on account of the risk of septic infection.

The treatment which has been adopted at the Rotunda Hospital for many years with marked success is as follows: In cases of central or complete placenta prævia the placenta is perforated with the fingers, version (if necessary) is performed, and a foot is brought down, a tight abdominal binder applied, and the subsequent delivery left to Nature, unless, of course, the continuance of hæmorrhage should necessitate slight traction on the foot. In case of incomplete placenta prævia under this heading, the treatment, with the exception of rupture of the membranes, instead of perforation of the placenta, is identical.

Scarlet Fever.

This is one of the most common affections of childhood and one in which the mother constantly stands in dread. The disposal of a dead body from scarlet fever should always receive careful attention. Annie Heweit Byrne in the Chicago Clinic writes that in case of death from scarlet fever, the body should be wrapped in sheets saturated in a strong carbolic solution, put into an airtight casket, which should not again be opened, and privately buried as soon as possible. Nurses and mothers cannot too highly appreciate the necessity of strict

isolation and careful nursing in even the mildest forms of this treacherous disease. Not infrequently do we find slight casse becoming most severe. The sore throat may become diphtheritic, there may be inflammation of the eyes or of the ears, with permanent deafness, but the most serious and fatal complication which may come on, even two or three weeks after convalescence is established, is disease, of the kidneys, followed by dropsy and convulsions. Then, too, other children may contract the most severe form of scarlet fever by exposure to the mildest type. And let it always be borne in mind that "cleanliness not only lessens the danger of serious complications, which are often fatal, and mitigates the severity of an attack, but it is the great germ destroyer and prevents the spread of this great germ disease in house-holds."

Some Common Sources for the Propagation of contagious Diseases.

In the St. Louis Medical Era is an interesting paper by Ethan H. smith in which he says:

All phyicians should be required to keep a register of all patients suffering from gonorrhœa or syphlis. This register should be inspected once or twice a week, or once a day, by a police surgeon, who should see where such patients are employed, and order these same patients to cease work, if in a position to transmit the disease to innocent parties.

Cups for public use or public drinking fountains should be abloished, and some cheap and convenient portable drinking apparatus put on the morket. "Yankee ingenuity" will supply the demand.

All school rooms should be disinfected every Saturday. Every hotel room should be fumigated after every invalid or individual with a cough has occupied it. Churches and theaters, stores and factories, should be frequently fumigated. This would markedly decrease the contagion of tuberculosis.

All towels in all public lavatories or hotels and boarding houses should be sterilized. It should be a part of city legislation to compel this work to be done in all laundries doing work in or for public institutions. All such articles should be sent from the laundry in sealed packages, and subject to the order of a city inspector.

These are matters of vastly more importance than the much talked about "commuion cup." While adherence to the Church is no gaurantee against diseases, it is the smallest in importance in disseminating diseases.

The public hair-brush and comb have nearly ceased to exist. They ought to be as scarce as as a public tooth-brush. The public drinking-cup should be included with the rest.

Some Facts of Responsibility in spirit and Drug Takers.

This subject is ever before the profession and well it should be. T. A. Crothers, in the Medical Record says:

The inebriate, like the man intoxicated, exhibits confused, halting ideas and beliefs about morals and his duties to his fellow-man. His etheral sensibilities and conceptions of duty and obligations undergo a progressive degeneration, while the coarser organic operation of the mind and body seem but little disturbed. Hence the acts and thoughts that are supposed to be malicious and brutish indicate merely a suppression of the higher co-ordinating centres. This is seen parctically in many cases in which persons of refinement in thought and act, afer the of use alcohol have become course in languag and manner, and brutal in conduct. Often the inebriate is amazed when told what he has said and done while under the influence of alcohol, showing how far he has been dominated by the alcohol paralysis. But if the drinking is continous, he is unable to review his thoughts and act, and both the mind and body undergo a debasement that is marked. Morally, mentally, and physically. he slowly or rapidly grows crippled and deformed. The inebrate is a moral paraletic. His intellect is disordered, and among the insane none are more dangerous, for the reason that he has no fixed mentality or conception of himself and his relations to others. He may, before the use of alcohol, have formed habits and conceptions of life that cling to him automatically, and thus enable him to act in the ordinary grooves of normal life, for a while, without marked debasement. He may, as a professional man or as an artisan or farmer, pursue his vocation with reasonable success; but let some supreme crisis intervene, let some emergency throw him out of his automatic range of life, and his true state will be revealed. His damaged brain may be seen either in crime or insane confusion of all his thoughts and acts.

Scurvy in Infants.

Louis Starr says in the Philadelphia Medical Journal that infantile scurvy is a constitutional disease occurring usually before the end of the second year. To put the whole question in a few words, the

cause of scurvy in infants is the *continued deprivation* of *fresh food.* The faulty foods may be classed in the order of their potency.

1st. The different proprietary infant's foods administered without the addition of cow's milk. These foods are responsible for the greatest number of cases, and which variety most readily induces the disease, depends chiefly upon the extent of employment or the fashion at the time.

2d. Proprietary foods employed with the addition of insufficient quantities of cow's milk.

3rd. Oat-meal or wheat gruel. Barley and other farinaceae administered with water alone or with water and insufficient cow's milk.

4th. Condensed milk and water.

5th. Sterilized milk. Properly modified milk mixtures subjected to a temperature of 212 deg., F. from thirty minutes to an hour or more.

6th. Too dilute milk and cream mixtures. Laboratory mixtures with too low albuminoid percentage,

Pyogenic Bacteria.

Streptococcus is the specific agent in erysipelas, writes Florence F. Rice in the Trained Nurse and Hospital Review, which is an acute infectious disease of the skin.

Streptococcus is the specific agent in erysipelas, which is an acute infectious disease of the skin. The cocci get into the skin through small wounds and extend through the lymph vessels, crowding them with bacteria. In erysipelas there is little tendency to pus formation; a section of the skin shows a diffuse necrosis, a general reaction may follow with septicæmia, rarely pyæmia. With septiæmia acute endocarditis frequently occurs, caused by deposit of bacteria on the valves of the heart. Erysipelas may be sharply localized to the face and head, or may spread in a peculiar way; one part heals, another part immediately starts up. This is called migratory erysipelas and may extend over the wole surface of the body.

Queen Victoria.

In every walk of life it seems the Good Queen did the proper thing. When there existed quite a prejudice and supersttiion against the use of Chlorotorm she submitted herself to its use when the Duke of Albany was born. J. A. Crook in the Nashville Journal of Medicine and Surgery says.

"Among the many enconiums bestowed upon the dead Queen Victoria, it is recalled how much she did for painless obsterics by submitting herself to the use of chloroform at a time when prejudice and superstition were arrayed against its use. When the duke of Albany was born, anesthesia was used for the first time in royal labor, thus the stamp and approval of royalty was placed upon a proceeding which soon became universally fashionable. Another service the Queen rendered to medicine was by always having her professional entourage composed of men of high character and scientific attainment. Faith cure, christian science, or osteopathy never could have gained recognition of any kind from a woman of such shrewd common sense."

The Toxæmia of Pregnancy; Its Diagnosis and Treatment.

In a long, comprehensive and able article upon the above subject, S. Marx, in the Record, draws the following conclusions:

1. Toxæmia of pregnancy is a complex condition depending on more than one factor.

2. Many women go to term with albuminuria, without symptoms referable to a toxæmia. When such symptoms arise they are not caused by the albumin present, but by faulty urea secretion.

3. In the most desperate and malignant cases there is found neither albumin nor casts.

4. Urea is always found markedly diminished in the so-called true toxæmias of pregnancy, or urinæmias.

5. Finally, I make a strong plea for a regular and methodical course of urea estimation in all cases of toxæmia, or for the relegation to secondary importance of the time-honored examination for albumin.

6. Progressive diminution of urea excretion, with or without albuminuria, is the sole indication for the induction of premature labor, which is especially indicated when conscientious medical treatment fails.

The Therapeutics of Ipecac.

Ipecac is an old remedy. Its uses are many. In some, such as dysentery, it acts as a specific. One instance where it is indicated is given by W. H. Blake, in Merck's Archives:

Ipecac is indicated where the stomach is much enfeeled, the tissues lax, its blood-vessels without contractile energy and distended with blood forced into them by stronger vessels behind, and of which they lack power to clear themselves—one consequence being an excessive degree of heat,

another an excessive amount of gastric fluid, or inferior quality, incapable of digesting food, causing atonic indigestion with sour stomach, flatulence, and eructation, having the odor of sour mash; often canker spots in the mouth, etc. In these conditions ipecac, if taken in doses of 1-4 grain several times a day, having precisely the same influence upon the nerves and centers of the locality as it has elsewhere—exciting increased energy in the blood-vessels supplying the gastric mucous membranes—prevents their being so distended with blood. It also, therefore, prevents the excessive heat, excludes the excess of material, gradually puts an end to the hot-house growth of mucous cells, and checks the production of excessive amounts of worthless gastric fluids. Acetous fermentation of the food no longer occurs, acid gases are no longer generated, and aphthous ulcers no longer afflict the patient.

The Doctor's Fee.

What fee a doctor should charge has always been an unsettled question. There is no limit to the amount as to what a physician or surgeon may charge. There must be a minimum fee established and abided by. John B. Roberts, in the Philadelphia Medical Journal, says:

There is, it seems to me, one just plan by which fees should be regulated. It is that the doctor should have an estimate of the value of his services, operative or otherwise, fixed in his mind. The amount should be based on his experience and skill. It should not be so low as to coax away unjustly the patients of the younger and less experienced men of the profession. This fee should be lessened when the financial position of the patient would make its payment a serious burden. It is not professional or humane to take a man's income for a whole year, to pay for the doctor's bill of a whole month.

Treatment of Acute and Chronic Lymph Nodes of the Neck.

This disease is so common and there is such a diversity of opinion as to treatment that a consideration of the subject may prove of benefit to the profession. H. Horace Grant, writing in The Medicine, says there are four forms of chronic tuberculous adenites: (1) single, indurated, slowly growing gland; (2) multiple indurated glands with inclination to break down; (3) softened suppurating gland; (4) old, suppurating gland with sinus.

In concluding his article, he says:

1. The cause of tuberculous adenitis of the cervical region is almost always local, and takes place through the buccal cavity.

2. The glandular manifestation, when it progresses, and especially when it is followed by suppuration, indicates a damaged and usually useless, often dangerous gland.

3. The removal of such a gland in toto and promptly is neither difficult nor dangerous, and is the treatment indicated.

4. Nature will probably provide a new and equally perfect protection in the stead of the one that is lost.

5. Multiple enlarged glands indicate a constitutional tendency which will not be beneficial by removal, except when local discomforts and dangers indicate it.

6, Small groups or single slowly growing glands are subject to the same indication.

The Use of Forceps in Childbirth.

There are times when the use of the forceps is proper and most advantageous both to mother and child. There are times when their use is utterly uncalled for. In other words they are valuable implements in their place. Hugh Boyd, in the Alabama Medical Journal, says that Carpenter tells us they are called for: 1. "Whenever, in head presentations, normal labor becomes difficult or impossible from feebleness or absence of expulsory pains; (2) whenever there exists a disproportion between the child and maternal pelvis—as excessive size of fœtal head—prematurely ossified head, contracted pelvis or excessive resistance of perineum; (3) whenever there exists any dystocis, as hemorrhage, syncope, eclampsia, rupture of uterus—in any condition in which the life of the mother or the child is endangered by its remaining; (4) sometimes in breech presentations. This eminent authority states further that they are called for more frequently in cases of (1) resistant perineum, (2) persistent occipito-posterior positions, and (3) contracted pelvis, than in any others; and of these the first two are most common—especially in primipara."

The Treatment of Dysentery.

This is the season for this disease, and a discussion as to its treatment is always in order. H. B. Tochane Symons, of Italy, favors the following treatment:

Douches every four hours of a solution of tannic acid, 3ss. to a pint of warm water, have been found of great use in rapidly diminishing the number of evacuations and speedily mitigating the distressing tenesmus. Hot hip baths have value in reliev-

ing the hypogastric discomfort and local smarting. They may be resorted to before the douche is practised. The ordinary indiarubber syringe can be used where a douche or enteroclysm is unavailable. This, with perhaps a little opium by the mouth, rest in bed, and a strickly milky diet should comprise a routine which, in the lighter forms of the malady, affords prompt and permanent relief.

The Use of Hot Water Vaginal Injections.

The local use of hot water in the treatment of pelvic diseases of women probably antedates the erection of the pyramids. In cases where the douche is indicated the following rules, says James Hawley Burtenshaw, in the New York Medical Journal, should be observed:

1. Use a large-sized fountain syringe or douche can attached to a support three or four feet above the body.

2. Always lie flat on the back when taking a douche, with the hips slightly elevated and the shoulders depressed.

3. Always use at least *three gallons* of plain water as hot as can be borne (at a temperature of from 107 deg. to 120 deg. F.) for each douche.

4. Take the injection twice daily, morning and evening, except on the two days preceding and the two days following the menstrual period, when it should be omitted.

5. Rest for half an hour or an hour in a recumbent position after taking each douche.

The Use of Bromides in Epilepsy.

L. Pierce Clark summarizes his ideas in regard to giving bromides in epilepsy, in the Buffalo Medical Journal, as follows:

1. Bromides still hold a very important place in epileptic treatment.

2. Tonics must be given constantly while administering bromides.

3. Bromide salts should be given gradually to find the epileptic's sedative level.

4. Baths, high enemas, alimentary antiseptics, massage, and electricity are absolutely essential to successful bromide medication.

5. Bromine is a worthy successor to the bromides in many cases.

6. Salt starvation or semi-salt starvation is a great adjuvant to the bromide treatment.

An ordinance has been introduced into the city council of Baltimore providing for the erection of a municipal hospital for infectious diseases.

Why Does an Acute Abscess get Well.

The possible reasons of the healing of an acute abscess induced by staphylococcus pyogenes aureus is partly given by G. L. Cheatle, in the Indian Lancet, in his words:

All one can say at present is that an acute abscess gets well because the dose and virulence, with other factors connected with the micro-organism and the condition of the host, are so balanced that death of the host is not possible unless that balance is destroyed by a concomitant fresh infection or failure of the host to maintain its protecting properties.

The Administration of Anaesthetics.

This is an old subject, and one upon which a great deal has been said and written. Its importance should never be forgotten. A. A. Kerr in the Medical Standard says that every patient before being anesthetized should be subjected to a careful, systematic, physical examination, due attention being paid to the following points:

(a) The presence or absence of either organic or functional disease of the kidney.

(b) The condition of the heart and vascular system.

(c) The condition of the lungs and the whole respiratory tract.

(d) The condition of the gastro-intestinal tract.

(e) The presence or absence of false teeth.

(f) The condition of the lymphatic system.

(g) The condition of the blood. As to the amount of hemoglobin. (Later not so important.)

(h) Habits, e. g., alcoholism and morphinism.

The preliminary examination of the urine should never be neglected.

A Study as to the Cause of Pulmonary Phthisis an Important Feature Bearing on its Treatment.

In reference to this subject Thomas Bassett Keyes in the Medicus emphazes the following important points:

1. The nerves of the lungs are to be treated from the anterior and posterior pulmonary plexuses, which are formed by branches of the pneumogastric and sympathetic. The nerves follow the course of the bronchi and in their walls many ganglia are situated.

2. The sympathetic ganglia possess a nutritive influence over the nerves which pass from them to the perphery.

3. The pneumogastric nerve subserves

construction and metabolism. En-nervation of the nerve produces inhibition, diminished activity of repair tissue and building up.

4. After division of both pneumogastrics the lungs are found to be gorged with blood and inflammed and full of frothy mucous.

5. Clinidal experience teaches me that correction of all irritations that might lead to exhaustion of the pneumogastric and thus impair nutrition of the lungs, is the most important part of the treatment of pulmonary consumption.

6. The cure of pulmonary tuberculosis resolves itself upon two points: First, removal of the cause which is generally catarrh of the stomach or dilatition of that organ; second, to promote more fibren in the blood, in order to aid the formation of fibren about tubercular area, which is best done by systematic living in out door life, and proper medication after removal of the cause.

Acute Lobar Pneumonitis.

Suggestions as to the best methods of the management of acute pneumonia will always be interesting to the profession. In the therapeutics of pneumonia Chas. F. Hope, in the Texas Medical Gazette, emphasizes the following points:

1. The main reliance in the drug-treatment of pneumonia should be placed upon the generous use of duotal or creosotal, and as an auxiliary or substitute treatment, large doses of sodium salicylate.

2. The great majority of pneumonic patients tolerate well and require large doses of strychnine, eitner the sulphate or nitrate, especially in those cases manifesting symptoms of exhaustion, cardiac weakness or asthenia. This remedy is particularly valuable in enfeebled elderly persons.

3. Stimulants such as alcoholics, in small or large doses, pro re nata, are often of the greatest importance and service. To overcome the pulmonic congestion or hyperemia and to prevent cardiac thrombosis, the ammonium preparations will be found extremely serviceable. In the pneumonias of drunkards, as well as with aged persons, whiskey or brandy may be considered a sine qua non.

4. Give as little medicine as will meet the indications, so that gastric disturbances may not arise, thereby destroying what few chances the patients would otherwise have, especially if they are adynamic cases. Above everything else keep in mind Osler's warning "that pneumonic patients are more often damaged than helped by the promiscuous drugging which is still only too prevalent."

5. Hot applications are ordinarily more serviceable and agreeable than cold local appliances. German physicians, however, claim excellent results from the ice-bag. Wet or dry heat, in the form of the hot mush jackets, hot-water bags, the woolen jackets, sinapisms, or turpentine stupes, are all available measures. In some cases the chest may be painted with the tincture of iodine. Dry cupping possesses the desirable property of relieving obstinate pleuritic pains.

6. The nourishment should be bland, digestible, and mainly fluid. Milk, beef-juice, fruit-juices and eggs are the most suitable.

7. Keep the patient at rest and in the recumbent posture until resolution is established, and pay particular attention to the hygienic and sanitary environments. Perfect ventilation is a prime requisite.

8. Convalescence should be carefully guarded, and such tonics and roborants as iron, quinine, strychnine, cod liver oil and the hypophosphites will be found useful restoratives for the malnutrition, anemia and depraved vitality.

The Etiology of the Skeletal Deformities of Rachitis.

Harry M. Sherman, writing in the Occidental Medical Times, in a recapitulation, says:

Structural weakness in the bone is the essential cause of the skeletal deformities of rachitis.

The active deforming force is either muscular action, or too great superincumbent weight, or pressure by some external object, or gravity.

The bone yields always in the direction in which the greater force is working, and this direction is often determined by the natural shape of the bone, the tendency being to increase normal curves. In some cases where there is no other reinforcing bone there is hypertrophy of the deformed bone to antagonize the deforming force.

Finally, symmetrical deformities are characteristic of rachitis, the similarity of structure of the two limbs, or the similarity of the mechanical conditions in them, tending to produce similar resulting deformities.

Follicular and Periurethral Abscess in the Male.

These are often the unfortunate and disagreeable complications of gonorrhea. The following very terse conclusions are drawn

from an article in the Memphis Medical Monthly by William F. Bernart:

1. Make sure of the diagnosis, for a follicular abscess may closely simulate a chancre or a gumma.

2. Try all the mechanical means available to produce an opening of the occluded duct or an absorption of the deposit.

3. Never await the breaking of a follicular abscess, as the destruction of the tissue is greater, or it may break both externally and internally, or it may rupture internally and point backward, thus favoring urinary infiltration.

4. Open through the urethra if possible.

Lavage of the Stomach as a Therapeutic Agent in the Treatment of Habitual Constipation.

The benifits recieved from washing out the stomach are often very gratfyin to the physician. It is a very simple procedure and a paitent is very easly edicated to its use. C. D. Spivak, in the Journal of the America Medical Association recommends lavage as a therapeutic measure in the following intestinal disorders.

1. Constipation due to excessive acidity of the stomach. 2. Constipation due to gastric atony. 3. Diarrhea resulting from excessive production of mucus in the stomach. 4. Obstruction of the intestines from whatever cause: "By lavag we releive the upper portion of the bowel from the pressure and weight exerted by the contents of the Stomach and, having relieved the pressure, the part of the bowel which lies above the constricted portion empties its contents into the stomach and thus lessens still more the general tension." 5. Habitual constipation. The first four indications are self-evident and do not require any extended commentary. The fifth indication, habitual constipation, of which I clain to be the originator, until some one will claim priority, requires a few words of explanation. I have "stumbled" upon this discovery. I have noticed in a number of patients who suffered from some gastric trouble accomdanied with constipation that, after I had used lavge on them, they reported the folfowing day that they had a natural movement of the bowels, "the first in many years." With the increase of the number of such cases it dawned upon me that there might be some relation between the washing of the stomach and the movement of the bowels. Instead, therefore, of only removing the stomach contents on the second day of the examination, I made it a rule to also wash the stomach in all all cases of constipation. The results were surprising. Later, I applied this measure to the treatment of habitual constipation in patients who were free from any gastric disturbances. In a large percentage of such cases the results were highly gratifying.

Forceps-Tourniquet.

J. Sym Thomas, in the British Medical Journal, recapitulating some of the advantages of the forceps-tourniquet over the Esmarch rubber tourniquet says:

1. It is not affected by climate.

2. It is easily sterilized.

3. It is most useful in major amputations, such as at the hip-joint or high up the thigh.

4. It does not require an assistant to look after it, for it is under the operator's control.

No Specific Cure for Tuberculosis.

Ethan H. Smith, writing in the Pacific Medical Journal, says:

The first sentence that should be written in a work on climatology and emphasized is, *money will make any ordinary climate good!* If a patient has only moderate means and a comfortable home, ten times as much can be accomplished for him in his home as can be accomplished away from home. If he is without means, let him seek a hospital and remain there. The disease is absolutely merciless, so it is a self-kindness for the impecunious patient to avail himself of hospital care. With abundant means travel may be made beneficial, but is not essential.

Tobacco as a Factor in Glycosuria.

H. Stern says in the Medical Record that he found that tobacco may influence the pre-established pathological output of urinary glucose in the following way.

First. By protracting the duration of transitory glycosuria, and by imparting to alimentary mellituria a certain degree of chronicity.

Second. By increasing the quantity of dextrose in the twenty-four hours' urine, in the transitory as well as the chronic forms of glycosuria.

Third. By transforming tne lighter degrees of chronic glycosuria into the graver forms.

Leucocytosis and Typhoidal Perforation.

According to the Boston Medical and Surgical Journal, Colin K. Russel, writing up the above subject draws the following conclusions:

1. That in perforation it is the general

rule to have a leucocytosis, but that the degree may vary within wide limits.

2. That the leucocytes, while appearing as a rule early, may not be at all marked until the general peritonitis and collaspe have supervened.

3. That there may be an utter absence of leucocytosis with marked perforation and peritonitis; in fact, that the cells may be lower than normal.

4. That with typical signs of perforation and a definite leucocytosis there may be no such complcation present, and an operation may be performed unnecessarily.

5. That a marked degree of leucocytosis may occur in complications other than perforation, for example, bronchitis, cholecystitis, etc.

6. That with pain and tenderneis in the abdomen, coming on suddenly during an attack of typhoid fever (and in the absence of evidences of cholecystitis or other definite complication), and a distinct leucocytosis, even without other signs of perforation, an exploratory operation is justified, even advisable,, thereby obviating the dangers of a fatal issue from too great a delay. The exploratory operation in Cases IV and V, done unnecessarily, resulted in no bad consequences, and the patients made a satisfactory recovery.

Transfusion, Infusion, Autotransfusion.

For all prectical purposes the infusion of saline solution alone deserves consideration as a therapeutic agent. According to American Medicine, G. W. Wagoner says it is indicated in the following conditions:

Hemorrhages, from whatever cause, and especially the obstetrical hemorrhages.

Shock, with or without loss of blood.

Collapse, occurring in the course of any disease, particularly cholera, cholera infantum, typhoid fever, and especially in the collapse following severe operations.

Puerperal infection, in which the salt solution is given to increase the power of the tissues and blood to resist the action of the microbes, destroy them and assist nature in throwing off their effects. It should be given hypodermically in 2-ounce doses, twice daily for some days. Good results have followed such a practice and it may be that other infectious diseases would be benefited by similar treatment.

Epilepsy and puerperal eclampsia, especially after a preliminary bleeding.

Uremic convulsions, both after bleeding and as a diluent of the blood, and to favor the elimination of urea by the kidneys.

In poisoning by coal gas or by narcotics, it is a powerful aid to elimination.

Anemia, in the different forms, to be followed by appropriate food and medication.

In all cases the treatment must be considered as the most helpful expedient that can be used to bridge over the gravest emergencies, and thus gain sufficient time in which the slower acting but more permanently useful remedies may exert their curative effects.

Typhoid Fever.

Philip Hanson Hiss, in the Medical News, draws the following general conclusions concerning the cause of typhoid fever.

1. During the course of typhoid fever, usually after the first week, typhoid bacilli can frequently be obtained from the blood, spleen, rose-spots, urine, and feces, and in rarer instances, it is claimed, from the secretions or exudations of the mouth, throat, and lungs. After death the bacilli have been demonstrated in these and other locations and lesions, such as the lymphatic tissue of the intestine, the mesenteric glands, bone-marrow, lungs, liver, gall-bladder, kidneys, etc.

2. The bacilli, as far as can be determined from various observations, do not thrive or ever survive long in the circulating blood. They are, however, able to live and multiply at some, at least, of the points at which they are deposited by the blood and lymph, thus forming bacterial foci within the tissues.

3. Morphological examinations of tissue sections to determine the relation of the bacilli to the lesions of typhoid fever have in most instances proved unsatisfactory and have given inconstant results. Some of the lesions, without doubt, occur at points remote from the bacilli. On the other hand, it is probable that the bacilli are intimately associated with many of the lesions, since whatever the bacilli, after gaining access to the tissues and fluids of the body, find lodgment and establish foci, after gaining access to the tissues and fluids of the body, the various products of bacterial metabolism and degeneration are thus concentrated and doubtless gives rise to lesions at these points. Moreover, it is not unlikely that certain lesions occur only at points of localization of the bacilli.

4. Typhoid fever, therefore, is an infectious disease, in which a wide dissemination and multiple localizations of the bacilli are frequently demonstrable both during life and after death. During the course of the disease, various tissue changes take place, some necotic, others hyperplastic. Some of these lesions are at points remote from the inciting organisms; certain facts,

however, point strongly to a close association of the bocilli with some of the more characteristic lesions, especially those of the lymphatic tissues.

5. There is a close connection, in time at least, between the appearance in, and disappearance from the intestinal contents, of the typhoid bacilli and the appearance and repair of the intestinal ulcers. The organisms are only very rarely demonstrable in the stools before the first days of the second week and disappear with the fall of the fever. During the period at which intestinal tissue destruction is most active they can be isolated with great regularity. When continuously absent in typical cases, this may be looked upon as indicating a probable scarcity or absence of intestinal lesions.

6. The urine in a certain percentage of cases contains the bacilli, though not often before the end of the second week. The organisms may not appear until very late in the disease or during convalescence. They may persist for days, weeks, and it has been claimed for months, and are generally associated with albuminuria.

Treatment of Croupous Pneumonia.

Samuel S. Adams, in the American Journal of Obstetrics, closes a most able and interesting article upon this subject in the following words:

In the treatment of croupous pneumonia in children, especially in infants, one must never lose sight of the fact that it is a self-limited disease, and that the method of treatment which will insure the best results is that which meets indications only as they arise.

The same general rules are applicable in the treatment of pulmonary tuberculosis. In contrast to croupous pneumonia, it is seldom necessary to resort to either internal or external antipyretics for the reduction of temperature, since even in severe cases of hyperpyrexia the temperature remains high but a short time before the remission.

Pharyngeal Adenoids, their Frequency and Sequlæ.

Concerning this subject Phillip D. Kerrison in Gaillards Medical Journal, adduces the following conclusions:

1. That pharyngeal adenoids in children are very much more common than they are generally supposed to be.

2. That cases of moderate development are often not recognized.

3. That adenoid growths of moderate size, though not necessarily accompanied by marked symptoms at the time of their development, are often responsible for grave conditions felt during adolescence and adult life.

4. That, unless removed, pharyngeal adenoids are in nearly all cases accompanied by more or less impairment of hearing.

5. That the presence of adenoids adds greatly to the gravity of intercurrent diseases, and increases the patient's respectivity to the germs of tuberculosis and diphtheria; and, therefore,

6. That the periodical examination of children for the presence of adenoids should become a routine measure of prophylaxis.

7. That cases of moderate development, no less than those in which the growths are of large size, demand prompt surgical treatment.

8. That the treatment should aim at complete ablation or removal of the growth, which in most cases is best accomplished with the patient under the influence of a general anesthetic.

Varicocele of the Broad Ligament.

According to the American Journal of Obstetrics, the local causes of varicocele of the broad ligaments, writes John B. Shober, mentioned in order of their importance are:

1. Subinvolution after labor or abortion. It is said to occur most frequently after abortion, because the muscular fibre cells of the walls of the veins, having attained a partial development, do not so readily undergo fatty degeneration, atrophy, and absorption as occurs after the termination of pregnancy at full term.

3. Extensive lacerations of the cervix extending into the broad ligaments, resulting in cicatrices which tend to diminish the circulation in the vaginal and uterine plexuses of veins, thus throwing extra work upon the ovarian plexus. Under these circumstances there is always an associated subinvolution of greater or less extent, involving not only the uterus but the broad ligaments as well, and the two causes work together.

3. Displacements of the uterus, anterior and posterior, combined with adhesions and inflammatory changes, often associated with prolapse of the ovaries, give rise to varicocele by distorting the broad ligaments and thus obstructing the circulation through the veins.

4. Chronic constipation was a frequent symptom in many of the recorded cases, and is considered to be a cause of varicocele, as it favors a stagnation in the pelvic circulation.

The Prognosis of Acute Disease.

In an article in the Indian Medical Record on this subject, R. Hingston Fox says:

The power of sleep is a very important factor in estimating the outlook of acute disease. "Lord, if he is fallen asleep he will recover," said the disciples concerning the illness of Lazarus; a truth early established by the ancient physicians, whose clinical insight was in some ways probably equal to our own. Little hope is there for the sleepless fever patient; we can, however, do much more to promote sleep than was possible to our forefathers. The existence of hysteria is of favorable omen in prognosis, for it generally exaggerates the symptoms of whatever disease is present, and so the patient seems to be more ill than is really the case. A like effect is produced in women by the presence of the menstrual epoch, which certainly accentuates febrile conditions. Nervous women are not, one would suppose, favorable subjects for disease, and yet they have oftentimes a way of getting through acute and threatening disorders, even to the surprise of their physicians.

"I really think she will worry through,
She scolds me just as she used to do!"

says the husband in the American ballad. Symptoms of pyrexia and a rapid pulse are of more significance in men than in women and children, because the nervous centres of the latter are more easily disturbed.

To Cut or Crush in Stone of the Urinary Bladder,

The question whether to cut or crush in cases of stone in the urinary bladder is no new one, as lithotomy and lithotrity have both been practiced for over a thousand years. Stuart McGuire, in Gaillard's Medical Journal, says:

Lithotomy may be done in any case, and has no limitations other than those of general surgery. Lithotrity is admitted by its advocates to be contra-indicated in the following conditions:

1. When the stone is hard and cannot be crushed by instruments capable of being used through the urethra.

2. When the stone is large and cannot be grasped by reasonable separation of the jaws of the lithotrite.

3. When the stone is brittle and the resulting fragments sharp and irregular.

4. When the stone is fixed or encysted.

5. When the stone has a foreign body as a nucleus, which cannot be crushed and removed.

6. When the prostate is enlarged, or the bladder contracted, making it difficult to seize the stone.

7. When there is a tight or impassable urethral stricture requiring a long operation to relieve.

8. When there is ankylosis of the hip joint in a position embarrassing the movements of the lithotrite.

9. When the general condition of the patient is such as to make shock dangerous and rapid work necessary.

Caesarian Section.

J. E. Summers, Jr., in the Medical Herald, believes that:

1. Caesarian section is desirable in every case when the relative disproportion between the pelvis and the child's head will not admit of the delivery of a living child.

2. Caesarian section, as an operation of election, is demanded in cases in which former labors have resulted in tedious, difficult, instrumental deliveries of dead babies. Done under such circumstances, there should be no maternal or infant mortality.

3. When a good operator can be secured, and there is always plenty of time to select one, the Caesarian section, at or about term, should have preference over premature delivery.

4. Caesarian section is the ideal operation in cases of central placenta praevia. Exceptionable circumstances, as in my personal case referred to, would contra-indicate the Caesarian operation.

5. Inflammatory products, new growths, benign or malignant, as complications of labor at term, call for the Porro operation.

Brain Tumors.

In an interesting article in the Philadelphia Medical Journal Charles K. Mills cites several cases of brain tumors and draws the following conclusions:

The diagnosis of the existence of a brain tumor can sometimes be made even in the absence of most of the general symptoms, such as optic neuritis, headache, vertigo, and vomiting, chiefly by the close study of localizing and invasion symptoms.

Emotional states, even hysterical stigma, are sometimes present in cases of brain tumor, and must not be given too much weight in differential diagnosis.

Tumors of the posteroparietal region, and especially of the superior parietal lobule (parietal of Wilder), gives as their most important localizing symptoms disorders of cutaneous and muscular sensibility, and especially astereognosis; other symptoms often present in such cases are

the result of compression or invasion of adjoining regions.

Tumors and other lesions implicating the angular gyre and the regions adjoining (the subparietal, first temporal and mediocipital convolutions), give as their main localizing symptoms word deafness and word blindness, with the usually accompanying speech disturbances, lateral homonymous hemianopsias and disorders of cutaneous and muscular sensibility, including astereognosis. Although it is possible that these disorders of sensibility in the case cited may have been dependent upon invasion of the superior parietal lobule.

Just as the centres for hearing, vision and speech are more highly differentiated in the left hemisphere, so it is probable that the stereognostic sense is more highly evolved in this hemisphere.

A tumor strictly confined to the motor regions does not give objective sensory phenomena of a persisting character; the localizing symptoms of a growth so situated are motor, chiefly paralysis and monospasm, with also exaggerated deep and superficial reflexes.

In tumors of the motor subcortex tonic spasticity is usually a marked symptom. Paresis or paralysis, and exaggerated reflexes, with monospasm or unilateral convulsions, may also be present.

Tumors of the prefrontal region, by which is meant the region entirely cephaled of the motor zone, chiefly give psychical symptoms of an especial character; when the tumor is situated on the left side, motor agraphia (or orthographia) and motor aphasia are usually present because of the compression or invasion of the posterior portion of the second frontal and of the third frontal convolutions; paralysis and other motor symptoms are often present late because of encroachments upon the motor region.

The Relation of Indicanuria and Oxaluria to Gastro-Intestinal Fermentation.

According to the Journal of the American Medical Association, J. A. Wesener, writing upon this subject, draws the following conclusions:

1. Traces of oxalates are found normally in the urine, having been taken in with the food.

2. Oxalate crystals usually denote gastro-intestinal fermentation. Food rich in oxalates must be excluded.

3. Abundance of oxalate crystals does not signify high acid percentage, because in addition there may be oxalate of lime in solution.

4. Indican is often, but not necessarily, associated with oxalate crystals.

5. Hyperacidity on a meat diet contributes to putrefaction, whether due to excess of hydrochloric acids or acids of fermentation.

6. In certain disturbances of the gastro-intestinal tract due to excess of hydrochloric acid or to excess of fatty acids, in which there is fermentation, indican and oxalic acid are increased.

7. The symptoms of oxalic acid diathesis associated with indicanuria are not due to the oxalic acid nor to the indol, but to other products formed in the process of fermentation, and therefore the oxaluria and indicanuria are valuable as indicative of a putrefaction, to which the symptoms are to be referred.

The study of oxaluria and indicanuria holds open a rich field for investigation. In the intestines there are various poisonous bodies produced directly associated with the formation of oxalic acid and the aromatics. These, when better understood, will lead to new ideas, thereby giving us a better understanding of chronic diseases, such as rheumatism, gout, nephritis, etc. I hope to be able to continue this work, as material presents itself.

Tobacco,

Concerning the effects from the extensive use of this weed I. N. Love in the Medical Minor writes:

1. Smoking in excess is more harmful than chewing, for the reason that the nervous system is not only more injuriously affected, but the catarrhal disturbances of the air passages render the smoker more liable to dangerous and fatal diseases of the air passages.

2. The excessive smoker is not only more liable to pneumonia, la grippe, tuberculosis, laryngeal and pulmonary, as the sensitive mucous surface and the bankruputed nervous system prevents a double invitation at all times, but fatal results are more apt to occur. Every case of laryngeal tuberculosis coming under my observation for several years has presented the history of victim being a smoker, in the majority of instances to excess.

3. Heart failure is a frequent complication and serious with excessive smokers.

4. Cigarette smoking is worse than either the cigar or the pipe, but only for the reason that, the cigarette being milder tobacco, the smoker almost invariably inhales the tobacco fumes, and when we realize the component part of tobacco smoke and how direct the route from the air vesicles of the

lungs into the blood current, we can appreciate the ill effect.

5. Inveighing against the cigarette on the ground that the paper is poisonous and the tobacco drugged, mixed with opium, Indian hemp, etc., is all wrong, as the cigarette, being a milder tobacco, perfectly pure, and the paper unobjectionable, if smoked without inhaling and in a temperate way, is to be preferred.

6. The cigarette smoker nearly always inhales the smoke, and, becoming habituated to this quick toxic action, he will not smoke without inhaling, whether he uses the cigarette or the pipe, for the same reason that the morphine habitue, accustomed to the hypodermic method will not be satisfied with the drug through the mouth: both victims want quick action.

7. Children who use tobacco before reaching maturity, have their growth interrupted, as nothing more definitely interferes with the equilibrium of tissue building, digestion, assimilation, elimination, metabolism, than tobacco, and for these reasons its use favors gouty diseases, atheromatous degeneration, premature senility and decay. The excessive users of tobacco are crippled in their general equipment and are in no form to wrestle successfully with any disease.

8. He who smokes cigarettes to excess, or uses tobacco in any form to excess, is in danger of becoming an alcoholic, but in even greater danger of becoming a drugger, as tobacco is so closely allied to opium and Indian hemp. And in a general way one excess invites another, as the will power becomes lessened.

9. Nothing is so apt to bankrupt the sexual equipment as tobacco, unless it be opium, as it stands to reason that a cerebrospinal paralyzant must obtund sexual desire and power.

10, The numerous mental wrecks, youths who have come under my care during the past ten years, whose lives were failures, or who fill suicides' graves, impress me that to-day tobacco stands as the gravest danger confronting the new century, and the medical profession has a fearful responsibility in educating young men and their parents to appreciate this danger.

Tetanus,

Maschcowitz, Boston Medical and Surgical Journal, in a paper which he read at the meeting of the New York County Medical Society, summarizes his views as follows:

1. All forms of tetanus are caused by the bacillus of Nicolaier; hence the diagnosis of rheumatic or idiopathic should have no room in our nosology.

2. The tetanus toxins appear to have a distinct affinity for the anterior horns of the spinal cord, which may be distinctly recognized by Nissl's method of staining.

3. The cerebrospinal fluid of tetanus patients is more toxic than the blood.

4, The antitoxin therapy appears to have a distinct influence upon the course of tetanus.

5. With the antitoxin treatment the mortality percentage has been reduced from about 90% to 40%.

6. Although the use of the serum is a most important factor in the treatment of tetanus, the other recognized therapeutic measures should not be neglected.

Vaccination, Clinically Considered.

Smallpox being prevalent in all parts of the earth, vaccination is a prominent and important subject at this time. A very lengthy and comprehensive article appears in the Medical News by Frank S. Fielder, in which he emphasizes the following points in regard to vaccination:

1. Complete natural immunity to vaccination is practically unknown.

2. In primary cases, delayed vesiculation, raspberry excrescence, and abortive course, mean poor virus.

3. Among the complications, there is now no danger of transmitting syphilis or tuberculosis. Other infections such as erysipelas, cellulitis, septicemia, etc., are more rare as methods of preparing virus improve, and more care is used at the time of vaccination and in the subsequent management of the case.

4. During the second week of vaccinia, a large painful areola may be considered normal if it be bright red, and if the vesicle be of typical appearance. If the vesicle be irregular, filled with greenish pus, and the areola be of a dark livid, purplish hue, the case is one of mixed infection.

5. Generalized vaccinia, aside from cases in which the eruption is spread by autoinoculation, is rare. Cases of doubtful diagnosis may be tested by the inoculation of lymph from one of the vesicles into another subject. If it be true generalized vaccinia, a localized vaccinia will develop in the inoculated person.

6. The destruction of the vaccine vesicle does not interfere with the immunity conferred by the vaccination.

7. Immunity is acquired about the time the areola is at its height—eight to ten days after vaccination. If smallpox appears at this time it will be mild. If the eruption

appears before the vaccination has reached the areolar stage, the disease will not be much modified by the vaccination.

8. Vaccination of the pregnant woman does not protect her child.

9. The fetus *in utero* may have smallpox, if the mother has it, and may be born with an active rash or with healed scars. A child born while the mother has smallpox is not only not protected, but has been exposed *in utero*, and will probably develop the disease before there is time to secure protection by vaccination.

10. The duration of immunity to smallpox which is conferred by vaccination is extremely variable, and in the presence of an epidemic, the fact of recent successful vaccination is only presumptive evidence of immunity. Of persons successfully vaccinated within five years, very few will contract the disease; but some will, though they will probably have varioloid instead of severe smallpox.

11. The duration of immunity to revaccination which is conferred by vaccination is also extremely variable, and is probably short (two years or under) in a larger proportion of cases than has been supposed.

12. The protective power of vaccination is in direct proportion to its excellence and completeness as shown by the number and quality of the resulting scars. Of the two elements which enter into this protective value, quality of scars is more important than number.

13. While the quality of a scar is a fair indicator of its protective power against smallpox, it is an untrustworthy guide in deciding whether the individual is susceptible to revaccination.

14. A person who is immune to smallpox can often be successfully revaccinated.

15. Revaccination protects against smallpox as fully as an attack of the disease protects against a subsequent attack.

10. A person who has been successfully revaccinated is much less likely to contract or to die of smallpox than a person who has been vaccinated only once. The more successful vaccinations one has had at different times, the more certain is his immunity, and the better his chance of recovery if he does contract the disease.

17. Revaccination, therefore, should be considered as important as primary vaccination, and should be just as systematically practised.

18. Primary vaccination should be performed in infancy, revaccination at school age. In the presence of an epidemic, however, revaccination should be performed even though the primary vaccination was of comparatively recent date.

19. The eruption in revaccination is more likely to follow the type of vaccinoid, than that of typical vaccinia.

20. Vaccinoid protects if the virus used is of high-grade efficiency. If the virus is poor, only partial immunity is conferred.

21. All vaccine virus should be subjected to rigid physiological tests before issuance. It should be retested monthly, so long as it is on sale. The virus from each animal should be kept by itself and numbered. It should be known by this number when issued so that it can be called in if retests show that its efficiency has expired.

22. Vaccination should be performed under aseptic precautions.

23. It is not sufficient merely to smear the virus upon the scarified area. It must be thoroughly rubbed, or scratched, or pricked in.

24. Vaccination shields often do more harm than good.

25. Cases of infected vaccination should be cared for by the physician and not by the mother.

26. Remember that the destruction of the vesicle does not impair the protective power of vaccination, and if signs of mixed infection appear, open the vesicle, cleanse the wound and treat it upon general surgical principles.

Ovariotomy in the Eightieth Year.

Operations upon patients at the extremes of life are always of interest and importance to the profession. Wilmer Krusen, in the American Journal of Obstetrics, writing upon this subject says the main facts emphasized by a study of Kelly's table are thus briefly summarized:

1. That ovariotomy in the aged presents no essential differences from this operation on patients of younger years.

2. That the rate of mortality from this operation on patients over 70, as shown by results in 100 cases, is 12 per cent.

3. That the indications and contraindications for ovariotomy in the aged are essentially the same as for this operation in general.

Treatment of Cocainism.

G. W. Norris in Mercks Archives reports a case of successful treatment of cocainism in a dentist by the use of one-third grian of sulphate strychnine every 4 hours. Sulfonal was used to produce sleep. On examining the literature of ocult and chronic cocaine intoxication, the author found that the following conc'usions are perfectly in accord with the facts.

1. Cocainism is the most insidious of all

drug habits. The use of the drug being unaccompanied by disagreeable after-effect —headache, nausea, vomiting, etc., which are met with after the use of opium or alcohol—the vice is readily and rapidly established.

2. Cocainism is occasionally acquired by the local use of the drug in diseases of the nose and throat, teeth, etc., but more often as a substitute for opium or alcohol.

3. Cocaine is eventually tolerated by the system in extremely large doses. (One case is recorded where 60 grn. were daily consumed.)

4. A relatively large number of habitues are found in the medical and dental professions. (It is said 30 per cent.)

5. The continued indulgence in cocaine invariably, and usually soon, leads to marasmus, with mental, moral and nervous degeneration.

6. The smallest fatal dose on record is one-third grn., hypodermically.

7. While many cases of acute intoxication are being continually reported, there are relatively few fatal cases. The majority of such are the result of large doses injected into the urethra and bladder, *e. g.*, in one case 5, and in another case 6 fluid drams of a 5-per-cent. solution into the urethra.

8. The amount of cocaine sold yearly is rapidly increasing, and its self-prescribed use among the laity and lower classes is becoming porportionately more widespread.

The Physician.

Forgeting the ups and dowms of a physician's life, recognizing that the labors of a physician are often unappreciated, and not forgetting the fact that his remuneration is often small, yet there is something hidden, some attraction inedefinable about his callling. This idea is very prettily expressed by M. M. Maffitt in the Medical Visitor.

The work of the conscientious, everyday practitioner calls for all the force of character, patience of mind and heart, which can be packed away in one human organization. May I say further that it requires a finer discrimination and a clearer insight into existing conditions, in order to bring about successful results, than all the honorable professions conmbinded. The physician stands, first, at the entry, and last, at the exit of every human life. I do not believe it too much to say that he recieves, from the hands of the Diety Himself, the human spark set adrift on life's rugged pathway, and acts for, and in conjunction with, the infinite power which controls that aggregate of thought, energy and will called life, during its allotted time. The physician becomes the counselor and sympathetic supportor of his patient. How often he is called into homes where there is great fear and anxiety, and the screen which all, more or less, place between strangers, is pushed aside to him. It is remarkable how many human ills have been helped, how many sad hearts made glad by the gentle touch of the hand, the kindly and helpful word, and, above all, the quiet influence which we all exert for good, for ours is ever the *quiet* profession, for the prudent practitioner is ever the keeper of his own counsel—thinking much and speaking little. There are times when a physician can do more good, in addition to that which his professional skill effects, than the minister of the gospel, when this barrier to which I have just alluded has been thrown down; he sees their uttermost necessities, and can help, in a truly charitable way, better than others who have not this opportunity of knowing what is really needed—whether of good counsel, friendly sympathy, mental or moral encouragement, material assistance or pecuniary aid.

Version: Indication, Technique Limitation.

Attention is called to the followimg rules in speaking of technique of version by S. Marx in the Record.

1. Always be sure of the position and the presentation.

2. Certify to the fact that the fœtus is alive or at best is not in immediate grave danger. If this cannot be done by the ordinary methods introduce the hand in utero and palpate the cord. Unless the child be in such condition that an easy and rapid delivery will produce a living child, it would be far better to do an elective perforation than to subject the mother to any other operation which carries with it an increased danger, for the sole purpose of delivering her child that will probably be still-born, or if born asphyxiated will give to this already overcrowded class of idiots another victim in the ranks. We, as accoucheurs, do not follow up these unfortunates, but the neurologists and baby doctors can tell us many a sad tale which, as they state, are the result of our too great conservatism in the use of destructive instruments.

3. Do your version as early as you can in the presence of an intact fruit sac; or, at least, as soon after the membranes have ruptured as possible.

4. Always introduce the hand corresponding to the position of the fœtal feet.

5. Always turn the child in such a fash-

ion that will keep nature's classsic ovoid intact; that is, carry the foot along the abdominal plane of the fœtus and not away from it. In the presence of unruptured waters it is advisable to preserve the integrity of the membranes until the foot is grasped. The woman being placed on the back, that hand is introduced which corresponds to the position of the feet: the left hand when the feet are in the right segment of the uterus, consequently to the left of the operator as he faces the patient; or the right hand when the opposite condition obtains. Slowly insinuating the hand between the membranes and the uterine wall, it is carried up to the fundus until a foot is felt. It is perfectly immaterial which foot you grasp or whether one or both so long as you have a foot. If a hand or arm is delivered by mistake, it should not be replaced, but should be left delivered by attaching it to a sling, since I have always felt that an arm deliverd is worth two undelivered. Rapidly bringing the foot down in a direction which does not disturb the well-fixed position of the child it is generally advised to finish the case by an immediate extraction. When a manual dilatation has preceded the version it is a well-known clinical fact that a rapid retraction of the lower utrerine zone is likely to recur, and for this reason, in order to prevent the head from being caught in the grasp of the spasmodically contracted cervix and causing the loss of the fœtus at the critical moment, it is always advisable to do a very rapid delivey. When we are dealing with a small pelvis the after-coming head must always be guided through the largest diameter of the inlet, which is usually the transverse. As the head comes through the contracted pelvic inlet the woman must be thrown momentarily into the Walcher position in order to increase the conjugate of the inlet, which it certainly does by one-half to three-qnarters of an inch, but at the expense of the corresponding diameter at the out-let. Consequently, as soon as the head has passed the contracted inlet the patient must be placed in the exaggerated lithotomy position. I feel that the great error committed by all of us is to rely too much, in delivering the breech, upon the traction efforts instituted by pulling on the legs, and for too little on the vis a tergo. From my own standpoint I always refrain from active traction efforts from below, but use the legs more as a guide for the after-coming head. well-marked and well-directed pressure from above will do more to keep the head firmly flexed and carry it through the brim than any manœuvre that I know of. The after-coming head can be delivered by any of the usual methods, but as an accessory measure I have found very useful the introduction of the fingers, not at the point of the jaw but well back to and beyond the root of the tongue, in order more forcibly to flex the head. The malar bones for this same purpose give too little and too uncertain a purchase.

Uterine Fibromata.

According to the Journal of the British Homeopathic Society, Wm. Carl Reed gives the following conclusions as to uterine fibromata:

1. High tension is a frequent, but not an invariable accompaniment of uterine myomata.

2. It is, I think, more marked in the soft than in the hard variety of this disease.

3. Fibroids are under certain conditions *excitants* of high tension.

4. The removal of a fibroid may alter the pulse tension materially, but the way in which it is altered is too inconstant to form in the meantime definite conclusions.

The Leading Editorials of the Month.

Auscultation.

The Medical Press and Circular says: Those who are interested in balancing the accounts in matters medical which are included in the century which has just ended, will no doubt regard the subject of auscultation as a very important item. When we examine into the question of what part it played in the armamentarium of the physician a hundred years ago, or at any previous time in the history of medicine, we must admit that every one of our five senses appeared to be superior to that of hearing, so far as the diagnosis of disease was concernde. In surgery, perhaps, where sounds might help as in fractures of bones, or sounding for calculi, the ear might be used to some purpose. It was a very different matter when Laennec developed the system included in the general term ''auscultation,'' and when the diseases of the most important organs of the human body, those of circulation and respiration, the heart, blood-vessels, and lungs, were brought within range of diagnosis in a way not concieved of before his time. If we were to ask a physician of the present day whether he would rather part with his sight or his hearing, we are not sure what he would say. For the surgeon, of course, it is entirely different, for an eye and hand are everything to him. It is the fact that

so much lies beyond the sense of sight in the practice of medicine that makes the difference between itself and surgery. The invisable plays so great a part in the science of medicine, that although the microscope has done much to assist, yet there will always be much which sight alone cannot fathom, as the forces engaged are invisable. Heat, light, elcticity, life itself, we connot find in the sight alone the power to comprehend, and there is no doubt but that the work of Laennec and his followers will stand out in the history of medicine as deserving of the front place in the progress of diagnosis. There is yet much to be done, however, to clear away the ignorance that unfortunately exists in regard to the physics of auscultation. If we turn over a work that was certainly the most complete on this subject then published, forty years ago, viz., Dr. Alison on the "Chest" we find towards its end a paper which was communicated for him to the Royal Society by Professor Tyndall, F. R. S., April 22nd, 1858, and if we examine this carefull we see that Dr. Alison writes of sound as if it were a something that "could be applied to both ears," and was independent of its surroundings in its physical or other qualities We feel regret that Dr. Alison did not study under professor Tyndall what sound really is before he attempted to make expeiments with tuning forks upon his ears. We have reasons for regretting that the late Dr. W. H. Stone was not spared to work out much that he was more capable than any one of doing, we believe, his wish and intention to do so, and was, and if life had been spared him much would have been done. We have yet to study the characters of those various sounds or vibrations which clinical medicine brings under our consideration, and which are of a peculiar and special character. In fact, now the material of which we are composed can be made to vibrate in all its various parts, and how diffierent the animal tissues are from the various substances with which we are accustomed to associate sound, generally a subject that is unexplored as yet, but which we hope will attract attention from those able to deal with it.

Death Certification.

The Medical Record says, probably in the vast majority of cases in which death occurs in the sequence of disease, for the treatment of which the patient has been under the care of a physician, the latter is not present at dissolution, on the occurrence of which a certificate is generally issued without actual knowledge of death or a view of the dead body. Such a course is almost unexceptionally unattended with ill results, but it cannot be denied that it opens a loophole for deception or crime which, although of rare occurrence outside of the novels, is occasionally practised, as is shown in a recent experience detailed by an English practitioner in The Lancet for March 2, 1901, p. 659, which confirms the oft-quoted statement of the greater strangeness of truth than of fiction.

A man, thirty-five years old. applied for treatment for relief from difficulty in micturition. Several days latter the physician was summoned to the patient at his room, where he was found in a week condition, with a temperature of 103 deg. F. He complained of severe pain in the loins and of constant headache, stated that his feet and legs swelled when he was out of bed, and that for some time he had been passing urine frequently in small amounts. The man was visited regularly in bed for eight days. Repeated examinations of the urine disclosed constantly the presence of albumin, hyaline and granular tube casts, and on one occasion also blood. At one visit the patient was found collapsed, deadly pale, almost pulseless, and suffering from a severe rigor. He explained that a fire had occurred in an adjoining room during the night, and that he had jumped out of bed almost naked to assist in extinguishing it. He then stated that he should have to send for his brother, and he gave the letter to his landlady to mail.

On the following day the man appeared drowsy and exhibited convulsive movements in the extremities. On the next morning the physician was visited by a man bearing a general resemblance to the patient, and stating that he was the brother of the latter, who had died during the night after a convulsion. The man paid the doctor's bill and received the death certificate. The suspicions of the landlady had, however, been aroused by the fact that no assistance had been called for during the night, and also that the room which contained the body had been locked up. The physician reassured her by agreeing to observe his usual habit of inspecting the corpse, though he was not required so to do either by law or by professional custom. On his arrival at the house the brother was not in, and the room in which the body lay was entered forcibly. On the bed the outlines of a human body surrounded by a coverlet were dimly visible in the darkened chamber. On closer inspection, however, it was found that the supposed corpse was made up.

Later in the day it was learned that the

patient was a senior medical student carrying a policy of life insurance for two hundred pounds. When the "brother was confronted with the facts he confessed to being at once patient, corpse, and brother, and he explained that he had entered upon the plan for the purpose of making his relatives believe him dead, as he had just been released from prison. He admitted that he had added albumin to his urine, although ill, while his elevation of temperature was genuine. After the physician's last visit, the man had gotten out of bed, shaved off his mustashe and reappeared as his own brother.

Apart from the unusual interest of this remarkable case, it is not without practical bearing in pointing out the desirability of legislation making it necessary that after death the body shall be viewed in every instance by a properly qualified person, and that not alone the cause but also the fact of death should be certified.

The Question of Anti-Expectoration.

The anti-expectorating question is a very important one, and in a great many cities—in Charlotte—ordinances against expectorating upon the streets and in public places are rigidly enforced. The Journal of the American Medical Association says:

There is no physician—at least we confidently assume this to be the case—who will not endorse anti-spitting ordinances on general principles. If there is any way in which the tubetculosis germ can be universally disseminated it is through expectoration, and there are other sanitary objections, only a little less emphatic, against the practice, to say nothing of moral and esthetic ones. If the antituberculosis crusade does nothing more than put an end to the abominable practice of public expectoration in all sorts of places it will deserve the gratitude of mankind. But will it do it? The most sanguine optimism can hardly venture to predict this result with certainty. Spitting is considered an inherent right; a judicial decision, perhaps more than one, has settled this fact, and in most of the municipalities of the country the chances of this offense being duly punished are affected by the fact that the prosecution must run the gauntlet of expectorating police and spitting magistrates in a very large proportion of cases. Then we must consider the objection of the average tough to interference with what he considers his right to be a nuisance, with the consequent hesitancy of the usual meek-minded citizen to come into collision with him, and the difficulties of the enforcement of the law grow upon one's consciousness. A policeman was nearly murdered in St. Paul the other day in attempting to make an arrest for violation of an anti-expectoration ordinance, and other similar events are not unlikely. Nevertheless, the enactment of such regulation is a good thing. A law does not go at once into innocuous desuetude—to use the term introduced by and associated with a great public functionary—because it is not universally enforced. A partial or imperfect enforcement has still a certain moral effect, and what is more needed than anything else is its educative action on the public. What we want is a creation of a general sentiment that it is indecent and disreputable to spit in public places, and when that exists it will not be difficult to make the act unprofitable and to enforce regulations against it. Our civilization is too much behind that of most countries in this regard; a duly educated public opinion bringing the public spitter into proper contempt is what we need. It may be necessary to acquire this before anti-spitting regulations can be fully enforced, but the present agitation, if not allowed to die out, will help to bring this about. Let us have anti-spitting laws and enforce them as far as we can.

The Indiscriminate Slaughter of Wild Birds.

The New York Medical Journal says: Public opinion is gradually veering toward the conviction that the careless and needless killing of wild birds should be stopped, or at least be restricted to reasonable bounds. There is an old saying that a typical Englishman when he goes out in the morning usually remarks, "It's a fine day" (or "a wet day," as the case may be). "Let us kill something." This blood-thirst instinct would appear to be almost as fully developed in the American. According to trustworthy accounts, the massacre of sea birds has been carried on in a so reckless a manner that many breeds bid fair to become extinct. The breeding-season is that generally chosen for this sportsmanlike pastime, as then the birds come unwarily within the range of shotguns, the result being not only the death of the birds themselves, but the spoiling of eggs and the destruction of the young. The American Ornithologists' Union has been and is doing all in its power to check the probable extinction of sea birds by these means. The union has been successful in prevailing upon the legislatures of twenty-two States to pass laws for the protection of sea birds; but in Louisiana, in the swamps of whose coasts wild birds of all kinds most abound, the authorities have refused to grant pro-

tective legislation. The committee, therefore, appointed by the union to devise means of preservation for the feathered inhabitants of this region has decided to hire wardens to guard the sea birds while they are on their breeding-grounds. As the New York Sun of Sunday, March 31st, points out, this scheme is now practicable, much of the Gulf swamp land having passed into the hands of private individuals, with whom the Ornithologists' Union has come to an agreement to prevent trespassing; and by shutting out the hunters from the marshes, it will become impossible for them to kill the sea birds which breed on these lands.

The Lacey act also is a powerful instrument for the protection of birds and beasts, as it makes it a punishable offense to export from a State any bird or animal unlawfully killed therein, or to receive such a bird or animal in any other State. The committee is sanguine that the vigorous enforcement of this law by the United States department of agriculture, which has the matter in charge, and the proposed extension of the warden system, will in a very short time break down the whole plume trade so far as it lives upon the birds of the United States.

That these anticipations may be fully realized will be the earnest desire of those who deprecate the unreasoning slaughter of beautiful and useful sea birds.

The Risk of Vaccination.

The New York Lancet says: There is becoming instilled into the public mind some apprehension that there is risk of "blood poisoning" in vaccination. Designing persons, among them some physicians, are endeavoring by specious argument to prejudice the public in these matters. While as a whole, the medical profession is a unit in the view that failure to be properly vaccinated is practically a crime against the community, these enthusiasts and disturbers of the public welfare urge their unscientific views against vaccination, bringing to their pretended knowledge the argument that by vaccination all kinds of dangerous poisons are introduced into the economy, thereby endangering the health and safety of the community. That there is a certain risk of infection whenever raw surfaces are exposed is a truism, but those loud-mouthed, clamorous doctors are careful to conceal the real danger if they appreciate it as a fact.

If the profession on all proper occasions were ready to place this matter before the people much of this morbid fear could be removed. In the main, the dangers from vaccination arise not from the vaccine virus (bovine), but from accidental infection, due it may be to lack of proper precaution by the vaccinator. Probably the most fruitful source of infection is from the finger nails of the patient scratching the vaccine sore at the time of the formation of the vesicle, thereby introducing pathogenic germs which multiply naturally by well-known pathologic laws. So, too, these germs may find access to the sore by contact with the clothing or other unsterilized material. If the truth can be known the foundations of error will crumble. To this humane endeavor the medical profession should lend its aid.

Routine Douching in Obstetrics.

There appears a very timely and valuable editorial in the Medical News upon this subject, much discussed to-day, in which it says:

Since Semmelweis showed how greatly the mortality from puerperal infection might be reduced by simply washing the operator's hands before delivery, much attention has been devoted to methods for still further diminishing the number of infected cases. With this object in view routine vaginal douching before labor has been advocated by many obstetricians. In the year 1887 Gonner announced that the vaginal secretion of pregnant women examined by him did not contain the pathogenic bacteria which were usually found in puerperal infections and for this reason the use of vaginal douches before labor for the prevention of auto-infection was unnecessary. Since that time the advisability of routine douching before and after delivery has been frequently discussed.

The statistics advanced by those in favor of routine douching, as well as those presented by the opponents of this procedure, are of uncertain value. This is due largely to the diminution of the number of cases of infection in the maternity hospitals, by reason of the many improvements in aseptic technic, such as the restriction of frequent internal examinations, and careful disinfection of the hands. This small proportion of infected cases affords poor grounds for estimation of the results of ante-partum douching, as some of the cases infected are doubtless due to individual errors in technic and so prove nothing in regard to the value of douches.

Certain observers have discovered pahtogenic micro-organisms in the normal vagina and for this reason advocate prophylactic douching. Others hold that the vaginal secretion possesses bactericidal quali-

ties. These are attributed by Doderlein to its acid reaction produced by the vaginal bacillus which bears his name. The experiments of Kronig show that the vagina takes longer to eliminate pathogenic bacteria artificially introduced, when douches are employed; and other investigators have found that douching, with or without antiseptic solutions, usually fails to remove such organisms.

The recent bacteriological researches of A. Wadsworth (American Journal of Obstetrics,) have led him to condemn routine antepartum or postpartum douching. His technic was such as to exclude all possibilty of contamination of the utering and vaginal secretions, and both cultures and staining methods were employed. He found that it was exceptional that pathological bacteria persisted in the vaginal secretion through pregnancy and labor, but that if they were present the lochia favored their growth, and energetic antisepsis after labor was necessary. Cultures from several cases in one of the best of New York's maternity hospitals demonstrated the persistence of streptococci in the vagina after repeated douching with a 1-5,000 solution of bichloride. He considers as requite points that the disinfecting solution be brought into contact with all bacteria by distending the folds of the vagina, and that it be of sufficient strength to kill the micro-organisms without, however, injuring the vaginal wall. The douche, as ordinarily given, merely removes the protective resources of the vagina. Wadsworth's cultures confirmed the statement that the uterine cavity is usually germ-free. He emphasizes the necessity of differential diagnosis between sapremia and septic condition, since intrauterine douching after labor is strongly indicated for the removal of all abdominal contents of the uterus in the former class, while in septic conditions it is likely to aid in disseminating the process unless the uterine sinuses have been closed by granulation tissue. The rule which he lays down is that bacteriological examination of the cavity of the uterus should always precede an intra-uterine douche and such an examination should be made early, since, if a radical operation is required, an early determination of this point is of great importance in regard to its prognosis.

Reviewing the results of Wadsworth's observations as well as those of others, one cannot fail to note that antepartum douches frequently fail to remove pathogenic bacteria when they are present; that they destroy the natural protection of the vagina, whether this be its secretion as a whole or the vaginal bacillus; that they are liable to cause slight injuries to the vaginal wall and so furnish points for the entrance of infection, or at least, by removing the lubricant of the vagina to make labor more difficult and thus favor such vaginal traumatism; and, finally, that pathogenic bacteria may be introduced by these manipulations. For these reasons, and on account of the danger of dissemination of sepsis by intra-uterine douching while the uterine sinuses are closed only by infected blood-clouds, one must in general agree with Wadsworth's conclusion; that "the routine management of cases should be freed as far as possible from all procedures which interfere with the natural resources of the body; for these, in the vast majority of cases, are sufficient protection against the invasion of pathogenic bacteria. In the few exceptional cases requiring interference this should be determined and directed by the bacterial examination."

This statement seems open, however, to slight modification. No one will deny after manipulations which require the intimate contact of the hand with the interior surface of the uterus, as in manual extraction of retained secundines, it is wise to give immediately a bichloride douche for purpose of floushing out any pathogenic bacteria which may have been introduced, before they have an opportunity to become attached to the uterine wall. Such a bacteriological examination as Wadsworth advises is obviously beyond the reach of the attending physician in a large proportion of cases in private practice, and in these the indication for douching must necessarily be derived from careful exclusion of all other cases of fever, with the presence of local symptoms. Whether the uterine con dition is one of sapremia or of sepsis must, in such case, be determined by the judgment of the physician, aided by the history of the labor and the probability of infection before or during labor as opposed to retention of secundines. As a general rule avoid douching in obstetrics unless it is particularly indicated.

A Medical View of the Chinese Boxers.

The Philadelphia Medical News says: "It was hardly to be supposed that the opportunity of writing about the psychology of the Chinese Boxers would be allowed to pass. This age in which we live is the psychological age. Everything from a pastime to a crime must be subjected to a psychological analysis. This sometimes looks like pyschology gone mad. In fact, we might almost call it the psychiatry of criticism. It is natural, however, that a

French physician should be among the first to call attention to the hysterical phases of the recent insurrection in China. M. Matignon tells us that he was impressed long ago with the fact that hysteria is very common in China, and in the spring of 1900 he undertook to investigate the subject. He examined more than 300 subjects and proposed to extend his anthropological researches to three or four thousand cases, when the catastrophe at Peking put a stop to his studies and caused him the loss of his notes. He, however, has recently given his impressions, which are that nervous diseases, contrary to the general opinion, are extremely common among the Celestials. He says that hysteria especially exists, and that the Boxer uprising has thrown new light upon this affection as it is seen in China. He thinks that the Chinese mind is very open to suggestion. The Chinaman believes more as he understands less, and that which he does not understand he has absolute faith in. Last year this natural suggestability was raised to the paroxysmal point. The whole Middle Kingdom was in a state of anxiety which M. Mantignon likens to the state which existed in Europe in the year 1000 at the prospect of the second Advent. The year 1900 was to have an intercalary month, and this was a grave omen which caused an exaggerated suggestability in the Chinese mind. M. Matignon evidently thinks that the Boxer uprising was a sort of pandemic frenzy, not unlike, we suppose, some of the popular manias which swept over Europe during the Middle Ages.

We are not disposed to criticisé M. Matignon's view adversely, although he may have forced his conclusions rather too far. We would remind those who are interested in the subject that Dr. Nevius, an American missionary in China for forty years, wrote a curious book a few years ago on demon possession as he had observed it in China. Dr. Nevius unfortunately was entirely without scientific knowledge and critical acumen, and doubtless misinterpreted the many curious psychological phenomena which he had observed in the Chinese during his long sojourn among them. He was evidently also prejudiced by his environment and took the extremely superstitious and theological view of all these mental traits. He believed in a veritable demon possession, although what he observed was evidently an outbreak of wide-spread hypnotic manifestation in the Chinese peasantry. If he had had the knowledge and literary skill of M. Matignon, without the superstition which disfigued his book, he could have made a most interesting contribution to the science of comparative anthropology. He enttrely ignored the power of hypnotic suggestion, especially as it occurs under the influence of religious excitement. In fact, the good missionary had lived so long in China that he seemed never to have heard of such a thing. The consequence was that instead of his book being a contribution to science, it was only a detriment to the cause of religion. We have no doubt that the Chinese have the mental characteristics that are common to the whole human race, and that in such a furious outbreak as that which occurred last year under the influence of religious excitement and racial animosity they have exhibited most interesting symptoms of mental perversion.

The Proportion of Doctors Among Men of Genius.

He who might wish his name to go down on fame's roll can heed the editorial below from The American Medicine and change his profession :

In the recent Dictionary of National Biography which has been issued lately in England, and in which persons of preeminent intellectual ability which Great Brittain has thus for produced are considered, there are mentioned some 30,000 persons. Havelock Ellis (popular Science Monthly, Februlary, (1901) has studied the records contained in this dictionary with a view to determining the elements of intellectual ability which have entered into the success of those eminent Britons. He finds that in a large proportion of these persons there is so little recorded upon which to base a judgment and for other reasons he eliminates from his estimates all but 859 men of a high degree of intellectual eminence. The number of doctors included in his list of names is surprisingly small, only 7 being mentioned : Caius, Linacre, Mead, Pott, Sydenham, Cheselden and Cullen. It would have been possible to enlarge the group somewhat by including a certain number of medical men who are not considered by their biographers to have attained a really durable reputation. He believes that just as really able business men are not satisfied with business success, so really doctors are not satisfied with professional success, but seek a higher success, specially in science. A number of eminent men in science, letters and philosophy have been doctors, but it has not been in medical practice that their reputations have been made. In this class he mentions such names as Harvey, Hunter and Jenner. It is questionable whether it can be truly said that these men did not make the reputations either in medical prac-

tice or what is practicallly the same, in allied medical sciences; and without the experience which these men gained from their medial education and practice, it is questionable whether their intellects would have developed in such a way as to lead them to any preeminent success. Among other names which Ellis includes in his lists are those of Locke, Goldsmith, Keats, Livingtone and others who were educated as physicians and some of whom practiced medicine but who cannot be said to have been deeply influenced by their medical training and practice.

This small list of names of doctors shows how little is the reward in the way of fame and public appreciation of service which can be expected even by the most successful medical men. Undoubtedly many of the men included in Ellis' lists were deeply influenced by a medical training. Without this they would never have attained their love for truly scientific study, their thorough understanding of human nature in all phases and the deeper sympathy with people of all conditions which the doctor gains from association with the sick and afflicted of all classes; for truly, suffering makes all men kin, and under the trying circumstances of serious illness men show their true characters as under no other circumstances. While the proportion of men who have themselves a permanent place in the archives of history among the members of the medical profession is not great, there are other rewards which are as great and in many ways more satisfactory. Ellis says the able doctor is not satisfied with his professional success, but seeks a higher success. Can there be any higher succes than the doctor's professional success? The certain knowledge that one has been able to alleviate suffering, and to cure disease is surely worth as much as a place in the Dictionary of National Biography and there are many unknown heroes in the medical professional who have as certainly earned a place in the hearts of their follows as Ian MacLaren's "Doctor of Old School."

The Diagnosis of Carcinoma of the Stomach.

The New York Medical Record says:

It seems a dull iteration to emphasize the fact that there are few if any pathogenic signs of disease. The careful clinician does not base his opinion upon one, or even upon several, but upon all of the phenomena that may be present in a given case, and these he endeavors to group in their proper relations, so as to make as nearly as possible a complete and comprehensive clinical picture. The diagnostic problem is often a most obscure and difficult one, and this is particularly so with regard to abdominal diseases. The desirability of promptness in diagnosis is most marked with reference to malignant diseases, especially of the abdominal viscera, because only early extirpation may give relief. In the case of carcinoma of the stomach, for instance, to wait until a tumor is demonstrable is often to permit the time to pass when the best results can be hoped for from surgical intervention. Several symptoms have in late years been thought to possess diagnostic significance in this connection. Thus the absence of hydrochloric acid in the gastric juice was believed to point unequivocally to the presence of gastric carcinoma, but this evidence was soon found to be only of relative and not of absolute value. Then, the presence of lactic acid and of the lactic acid bacillus was considered diagnostic.

Recently it has been pointed out that the leucocytosis that occurs generally after a meal fails to appear in the presence of carcinoma of the stomach. This, however, is opposed by observations that have still more recently been reported, to the effect that, in addition to the reduction in the percentage of hæmoglobin and in the number of red corpuscles, the colorless corpuscles also, especially the unincuclear, are increased. It has further been said that absence of digestion leucocytosis occurs likewise, though with less constancy, in cases of chronic gastric catarrth and of gastric ulcer. In order to reach an independent conclusion in this matter, Dr. Carstairs Douglas (British Medical Journal, March 16, 1901, p. 633) made a study of eleven cases of undoubted malignant diseases of the stomach, the diagnosis being confirmed in all, either by the course of the illness and the localization of the tumor, or by the results of surgical intervention of post-mortem examination. Digestion leucocytosis was found absent in six, present in four, and inconstant in one. These results correspond closely with those related by Osler and Macrae in a monograph on "Cancer of the Stomach" published last year.

It thus appears that there is no constancy in the number of leucocytes after the taking of food in cases of gastric carcinoma, and that the absence or presence of digestion leucocytosis cannot be implicitly relied upon in the diagnosis. There is reason to believe that such leucocytosis, when it occurs, is dependent upon the activity of the digestive and absorptive powers of the stomach, and that it will fail to appear when the latter are impaired from any cause. Its absence, therefore, cannot be looked upon as an indication specifically of malignant disease,

but of a state of the gastric functions that may not be associated with such disease. The danger of relying upon it solely or largely resides in the fact that the opportunity for successful operative intervention may thereby be permitted to escape. The clinician, therefore, must, here as elsewhere, weigh judicially all of the evidence in the case, neither ignoring nor placing too much stress upon any, and, after careful and deliberate study, reach a conclusion and act promptly in accordance therewith.

Drunkenness from a Meteorological Point of View.

According to The British Medical Journal, Dr. Johnson said to someone who ventured a meteorological remark, "Sir, do not let us talk of the weather." Certainly at the present time it should not be difficult to find a more agreeable topic; but as to the pure all things are pure, so to the meteorologist all things are, more or less, meteorological. It must have been a preistoric meteorolgist who framed the theory that lunacy is due to the influence of the moon. Another weather-wise theorist delivered himself of the dictum that "a green Yule makes a fat kirkyard"—an unlucky generalization which still makes many unreasonably afraid of an "unseasonable" Christmas. The meteorological theory that the fogs of November are accountable for a large increase in the suicide rate is also unsupported by statistics; but it is undeniable that the weather does to some extent influence human conduct. The east wind is answerable for much ill-temper and probably for many an impulsive act of injustice and cruelty. The question of the relation of drunkenness to meteorological conditions has recently been investigated by Mr. Edwin G. Dexter, an American observer who has given much attention to what may be called the ethical aspects of the weather. In the Annals of the American Academy of Political and Social Science (Philadelphia) he says that the records of the New York City Police show that the number of arrests for drunkenness within the city limits for each day of the three years 1893–94–95 was 63,117. Of this number 44,495 were males, and these were the only ones considered by Mr. Dexter. The next step was to have the mean temperature, barometer, and humidity, the total movement of the wind, the character of the day, and the precipitation for each of the 1,095 days of those three years at the New York station of the United States Weather Bureau taken out. Next, the exact number of arrests for drunkenness for dates falling under each one of the fifty or more definite meteorological conditions was ascertained. The average number of such arrests was then compared with the normal daily number for the three years. Taking first the occurrence of drunkness in the different months of the year, Dr. Dexter found that it was 47 per cent. less in July than in December. He thinks this difference too great to be attributed to mere accident. An analysis of the conditions indicates at least three possible causes. The first is the effect which certain holidays might have upon the occurrence of drunkenness. Thus Christmas would tend to increase the number of arrest for December. Again, the great patriotic festival of the 4th of July might be expected to swell the numbers for July. That month, however, fails to show evidence of any such effect, and in fact, a careful inspection of the daily records of arrests for drunkenness, though showing a slight increase for the festivals mentioned, proves it to be too small to account for the monthly figures. The excesses for the cold months are due to a large daily occurrence, pretty evenly distributed, and the deficiencies for the warm ones to the opposite condition. Another circumstance which might affect the results is the fact that in summer many people go out of town who come before the police courts with tolerable regularity during the other months; a close study of available statistics has, however, led Mr. Dexter to the conclusion that the influence of summer exodus cannot be great. The third hypothesis is that of the direct influence of the peculiar meteorological conditions, and this seems to Mr. Dexter to be the most plausible. By comparison of the statistics of police-court "drunks" with special weather conditions, he shows that the number of the latter is increased by low temperature, to some extent by high barometer, by high humidity, and also by high wind. His theory is that these weather conditions exhaust the vitality and cause craving for a stimulant. He recognizes the limitations of this method of study, for he points out that where the feeling of lowered vitality leads one man to the police court it probably leads a hundred others to the sideboard or to the bar for a drink; and of these, nothing is known. Mr. Dexter thinks it may be possible at some future time to base a further study of the relations between drunkenness and the weather on the daily output of some large city "saloons." Additional light from any quarter tending to elucidate the drink problem is welcome, and Mr. Dexter's laborious researches deserve acknowledgment. The fact that meteorological conditions have a good deal to do

with the prevalence of drunkenness has been a matter of common knowledge for ages. Sobriety is indeed largely a matter of climate. But unless we assume that there is a change of type in weather such as used to be believed to occur in the case of disease, meteorological conditions can hardly be held accountable for the increasing consumption in the sunny south of the strong drink of the cloudy north. Men who in winter keep their spirits up by pouring spirits down will in summer drink because they are thirsty. It is only those who like Cassio have very poor and unhappy brains for drinking that come into collisions with the guardians of public order. The worst inebriates—those who tipple all day long, taking wine for their stomach's sake, or brandy for their nerves' sake, or gin for the "spasm's," or whisky "because the doctor's ordered it"—may find in the weather an excuse for an extra "nip"; but the plain truth is that like the nigger of the legend, most slaves of alcohol "drink for drunkee," regardless of weather or season.

Marriage, Insanity and the Law.

The Medical News says: The law-makers of the State of Minnesota are contemplating a step to check insanity by making it illegal to marry without a physician's certficate as to the saneness of mind of the contracting parties, and the soundness of intellect of both their families. At first sight it seems somewhat difficult to legislate for such an end, for here the physician must certify that no brother or sister, father or mother or even grandfather or grandmother was afflicted with chronic imbecility or insanity; and the minister who marries two people without such a certficate showing a sound condition of mental health in both families is liable to a fine of $1,000, or not more than five years' imprisonment.

Whether or not the bill, if passed, will fit all cases, or whether it will force a large number who have afflicted relatives to take a wedding trip to another State for the marriage ceremony, is not the issue. There are so many exceptions of congenital or accidental insanity, of epilepsy not due to hereditary causes—in fact, good authorities ascribe the affection in nearly 70 per cent. of the cases to trauma during birth—and of imbecility that has no connection with family history, that the law would undoubtedly strike many whose marriages might be perfectly safe.

The real issue is, will such a law tend to decrease in the coming years the increasing number of those who are now flocking to the insane asylum of the State? Senator Chilton who introduced the bill and many of the physicians of the state who are strongly in favor of its passage, urge that it will be of undoubted benefit, as so many of the children that become public charges are the offspring of parents who were, either or both, tainted with insanity or imbecility.

The fact that the thoughtful consideration of *mental health* which physicians have so often, but vainly, urged, has become a sentiment so widely spread as to enable a bill to pass the Senate of the State is at least a sign of a popular awakening to a realization of the horrible statistics of the slow but sure results of such indiscriminating marriages.

If there were any way of shortening the effect of time and presenting human experience to individuals in rapid series of vivid consectutive pictures of cause and effect, the people would be the first to cry out for laws to protect them. No one questions the laws that prevent leprous, cholera and plague patients from entering our communities and mingling with the people, because the fatal consequences follow so quickly that the people learn their object lesson with revolting horror. But could they see in as many days, as it takes years, the development of insanity, the slow, pitiful suffering of the unfortunates and the horror and anxiety and heart-break of their friends in the cases that spring, with the fatal regularity of statistics, in the children and grandchildren and the great-grandchildren of a person who has insanity in his family, if these could be presented to the people as vividly as the physician sees them, there could de no more telling object lesson, and one would as readily share his marriage-bed with a lepor or a plague-patient as with a person directy tainted with insanity.

Although the law may bungle, and the neighbor States may help people to evade it, yet it is sentiment in the right direction, for if the problem of heredity could be cut out of insanity half of the existing asylums might be turned into "fresh-air" resorts.

The use Atropine to Affect the Intestines.

The Therapeutic Gazette says: There can be no doubt that the profession is in need of some medical substance which when given hypodermically will produce evacuation of the bowels, for conditions are frequently met with in which because of gastric irritability it is impossible to administer the purgative by the mouth, and ordinary rectal injections to unload the upper portion of the bowels are not always

possible because irritability or inflmamation of the bowels prohibits any attempt to produce a movement by introdusing medical substances into the rectum. For this reason, from time to time, various drugs have been studied with the hope that they might be introduced hypodermically and effect the intestine, but practically none of them have been found to be of any value. It is true that Ostermaier, Batsch, and others have attempted the treatment of intestinal obstruction by the use of large doses of atropine with hope that this drug by depressing the inhibitory fibers of the splanchnic nerves might produce active peristalsis, or on the other hand, by overcoming muscular spasm would permit peristaltic movement to take place. Thus Ostermaier has used these injections of atropine in the intestinal inactivity associated with hepatic or renal colic, movable kidney, and other conditons where laxatives have failed. He fond that atropine was usuallly successfnful in producing a copious fecal evacuation in from twelve to thirty-six hours, and that if it failed to act in this manner a very small dose of castor oil, or some other purgative, was efficacious. He further suggests that atropine be employed hydodermically to overcome the intistinal feebleness or inactivity following severe abdominal operations.

Other investigators, notably Raviart, have stated that the hypodermic injection of the hypiochloride of apocodein, an artificial alkaloid derived from codeine in much the same manner as is apomorphine from morphine, and atropine was capable of producing active peristaltic movement.

The medical profession have of course for many years recognized the fact that the administration of morphine and atropine was capable of producing active peristalsis in certain cases; notably, in instances of obstinate constipation of the bowels due to chronic lead poisoning. In these cases it has been found that the adminsitration of ordinary purgatives is entirely in adaquate to produce intestinal movement, whereas the hypodermic injection of morphine is often speedily followed by purgation. This clinical fact is explained by the hypothesis that the lead has produced a condition of muscular spasm of the intestine which is increased when irritating cathartics are administered, whereas when the nervous and muscular irritation is relieved by morphine, spasm is relaxed and peristalsis take place. It is claimed by some that obstinate constipation dependent upon renal or ovarian diseases is often relieved by the administration of bromides, which, by decerasing reflex excitability, prevent irritability of the ovary or kidney from reflexly inhibiting intestinal movements. So far as we are aware the statement of Raviart that apomorphine when given hypodermically is a rerliable purgative needs confirmation. While his remarks are not entirely original, a sufficient number of the profession have not yet employed this method to justify us in believing that it really is a remedy of great value for this purpose.

It has been held by some that in severe tympanites the administration of eserine in the dose of one-fiftieth of a grain by the stomach would exert its influence upon the intestinal coat and cause an explosion or disappearance of the gas causing tympanites. We have employed eserine for this purpose in a number of cases, but we have never been able to satisfy ourselves that its action was very positive. It is an undoubted fact that eserine does influence unstriped muscular fiber, but how great its influ. ence is in cases of diseases is still uncertain.

A Physician not Obliged to Answer Call.

This has been quite an interesting and much discussed question lately. In regard to the matter the Journal of the American Medical Association says:

Some time ago we noticed the starting of a suit against a physiaian of Indiana for damges for refusing to respond to call for his services. The plaintiff's complaint was based on the theory that under the state laws of Indiana, the defendant, having been duly licensed, was oblged to meet demands for his services when it was in his power to do so, The defendant physician, through his counsel, demurred to each paragraph of the complaint, holding that the facts did not constitute a cause for action against him. The demurrer was sustained in the circut court and an appeal taken by the plaintiff to the supreme court, which has just rendered its decision that the medical practice act is a preventive, not a compulsive measure. This decision will be found in our medicolegal department this week. In obtaining a state license to practice medicine it says, it is not required and the license does not engage that the recipient will practice at all, or that he will practice on any other terms than he may choose to accept. In other words, the physician is his own master and not a public slave, at the beck and call of whoever may demand his professional care.

Without discussing the merits or demerits of the special case involved, the principle established by the decision is the only rational one and it is well that it has been authoritatively settled in a community

where such suit could be seriously maintained, It is strange that the belief can anywhere be held that a professional man who draws no compensation from the state or community should be considered a public, or quasi public, servant simply because the law demands of him certain qualifications before permitting him to earn his living in a chosen way. That would be adding to the burdens of the already overburdened practitioner with vengence. The fact is, the puplic has often very little sense of justice as regards the medical profession, notwithstanding its dependence upon it in time of trouble. Good evidence of this is given in the newspaper comments on the present case, some of which are magnificent example of Pharisaic virture, feeling acutely for others' sins and utterly unconsious of their own.

We would not be understood in the least as ignoring the moral obligationg of the physician to attend cases in need—no physician worthy the name would be wilfully guilty of violating them, and it is safe to say no class in the commuity that lives up to them more. In the present instances we are informed that some of the *ex parte* statements sent out, on which some of the criticisms were based, were falsehoods, and this materially alters certain aspects of the case. However this may be, there is no right nor justice in falsely asuming a legal obligation that may be made to embarrass the physician where no moral obligations exist. The decision, while it is the only rational one, may serve as a useful precedent and as a preventive of future similar misconceptions of law and justice.

The Cleansing of the Hands.

Some years ago it was customary to enter into the gravest operation with little preparation as to the cleansing of the hands. In reference to this The British Medical Journal says:

The influence of Lord Lister on Surgical Methods may be tersely expressed by saying that whereas before his day a surgeon washed his hands *after*, now he considers it desirable to wash them *before*, an operation. The operation in the olden time was dirty work which soiled the hands!

It will be generally conceded that there are few surgical questions of such importance as that concerned with the disinfection of the skin. Surgeons since the days of Furbringer and Semmelweis have expended time and vast labor in attempting to elaborate some method that should ensure the asepticity of the hands during an operation. Experience has gradually led to the belief that it is largely due to a want of personal surgical cleanliness that the occurrence of any septic processes in wounds must be attributed. All materials, instruments, ligatures of whatever variety, dressings, and so forth, can be sterilized with absolute precision. Practically the skin can never be rendered sterile. Some potentially active organisms always remain on the epidermis, in the hair follicles, or in the mouths of the sebaceous glands. Experiments cunningly planned and carefully carried out leave no doubt of the truth of this statement. In the cleansing of the hands all parts are certainly not subject to the same measure of attention; the area of skin tested by many culture experiments is infinitesimal when compared with all that is brought into intimate contact with the wound, and therefore any result obtained by such experiment is only approximately correct.

In two recently published volumes, a series of experiments are recorded, the object of which was to determine the most effective method of preparing the hands for surgical operation. It cannot be said that either sheds any fresh or clearer light upon the subject, or offers any suggestion that is novel or noteworthy, but it may be said that the following methods are among the most successful so far suggested: (1) Mikulicz's: this consists in scrubbing the hands with alcohol and pumice, and subsequently rubbing them well with the "spiritus saponatus" of the German Pharmacopœia; (2) the mechanical disinfection of Schleich; the rubbing of the hands vigorously with a specially prepared soap containing wax and pounded marble; (3) Krong's method, of cleansing with soap and hot water, and then scrubbing vigorously in a solution of mercuric ethyldiamin; (4) Ahlfeld's method, in which the use of hot water and alcohol is paramount; and (5) Lockwood's method of cleanisng with soap and water, rubbing with benzine or turpentine, and soaking in a solution of biniodide of mercury, 1 part in 500 of methylated spirit.

It is clearly necessary in all cases to cleanse mechanically with soap and hot water to ensure "mechanical disinfection." For obtaining "chemical disinfection" it is probably safer to use alcohol in some form. The great advantage of the spiritus saponatus is that it can be worked up into a copius lather, with a solution of 1 in 1,000 biniodide of mercury. The disadvantage of this, as of all methods, is that it dries and roughens the hands, and necessitates a subsequent cosmetic discipline. Hægel, indeed, lays considerable stress upon the advantages of careful toilet of the hands on all occasions, in order that roughness, dry-

ness, or cracking may be prevented. Bumm has pointed out that a clean, sharply cut wound is less likely to attach to itself any organisms on the hands than is an irregular, coarse, or frayed one. The manual dexterity of the operator, by lessening the duration of an operation, will naturally limit the number of organisms deposited in the wound.

The impossibility of ensuring the sterility of the skin has driven many surgeons to the use of rubber gloves. Of their efficacy no less an authority than Halsted speaks with conviction. In England, although our despiar in attaining absolute asepsis of the skin may lead us to say, with Lady Macbeth.

What, will these hands ne'er be clean?

we shall probably continue to prefer the hand to the glove.

MISCELLANEOUS.

The Medical Treatment During the Adolescent Period.*

The adolescent period in the female may be said to be as critical in results as the menopause, and by reason of the methods of our education may be said to be one of the best known conditions universally recognized, and, as such, the common property, not only of the profession, but also of the laity. For this reason, it is not an uncommon fact to witness, not only the diagnosis of this condition being made by the "officious meddler," but also treatment. And it is very often, when such treatments have failed, that the patient is brought to the doctor. In such instances great care and discernment must be the weapons of the doctor, for it will be noted that recourse to all the old well-known remedies had been applied before further advice is sought. The commonst symptom that presents itself is the one that refers to the menstruation. And it is in all probability that this disordered condition is the most conspicuous factor that needs correction.

Two classes of cases are most numerous, and may be divided into: 1st. That class that has never menstruated, and 2d. That class, that may have begun, shown a very slight discharge at infrequent intervals—once in six or nine months—but which has never grown to an extent at any time that may be termed a normal flow. The history of these cases are very generally of the same character, and may be briefly summarized: Disgestive disorders, headaches, languor, flushing, sensations of fulness in the abdomen, disturbed or unnatural sleep, or sleepy conditions during the daytime; often some cutaneous affections—acne the most common. Whilst the symptoms may be present in some, frequently only part of them may be present in certain cases, as the skin affection. During the period that should be termed the "menstrual" period the symptoms are generally aggravated. If the "acne" be present, at this time, a fresh crop of pimples appear, and thus can be noted other symptoms.

In all cases of menstrual disorders in the young, the cause must be sought for, and if found corrected. This of certainty directs the treatment. In cases where the menstruation has never appeared, it should always be a certain rule to have the sufferer examined by the mother. In quite a number of instances, anatomical reasons have shown the reason. In four cases an "impervious hymen" was the cause. In two cases the "uterus" became the receptacle, and contained the result of numerous menstruations, becoming enlarged even above the pubic bones; the cervix being impervious. In several instances there was an entire absence of the uterus and ovaries. This I noted in two cases, both married, and were examined for the reason. In one case, an otherwise well developed young woman, age 21, there was an absence of a vargina. Such cases as thus enumerated, nothing can be done in the line of medication, but judicious surgical procedures may in indicated cases (impervious hymen or cervix) make a cure. Where, however, no necessary organs exist, nothing can be done, except such rules, as the regulation of the bowels, etc., at stated intervals, give much relief to the frequently present nervous symptoms. Where, however, no anatomical reasons exist, and the patient suffers from suppression of the menstruation, entire or in part, much can be done to aid a cure.

The question of age frequently enters as an answer to results. We have with us such a conglomeration of different nationalties, that the "age" question is a very vital one. Inasmuch, as frequently, the treatment of menstrual disorders may be wrongly applied, as an example: To attempt treatment of a girl 13 or 14 years, when her mother only began menstruation at 12 years. Experience has taught me that girls born in warmer countries, or descending from such parentage, begin to menstruate much earlier than those of colder climes. For instance, girls from Italy or Cuba begin at 12 or 13, where those from Norway or

*Edwin Rosenthal, M.D., Philadelphia, in The Medical Fortnightly.

Sweden begin at 15 or 16 years. Again, in races I have seen some suprising differences. The colored race have presented a girl of 10 years, and often I have seen girls of Russian-Jewish parentage begin at 10 or 11 years. So that the question of age should always enter into the treatment.

Whilst the most common symptom of disordered menstruation is "anæmia" and as the better known "chlorosis," or vulgarly "green-sickness," its absence need not preclude the use of the most common of all our remedies—iron. Anæmia alone may be the cause of suppressed menstruation, and while its presence may be looked upon as a certain cause, its treatment is as essential for the appearance of the menstruation as it should be for the general health of the patient. That anæmia in girls is most frequently found at this time leads to the common belief that anæmia, green-sickness, or whatever name this blood condition may receive, is the chief factor in menstrual disorders.

The treatment of such conditions are numerous, and should divide itself into the causative factor first, and then, after this has relieved, to the specific symptom. In other words, it will be wrong to attempt by the use of specific remedies the appearance of the menstruation, if the physical condition of the patient is such that should not permit it.

Besides the condition of the blood as a cause of suppressed menstration, other well-known conditions equally play a prominent part. Even if the patient should suffer from such diseases (tuberculosis as an example) the presence of a menstrual flow has such an encouraging inflence upon the mind of the sufferer, that some attempt should be made, and as the method pursued by myself for many years can only be of benefit, such conditions are not contra-indications for its use.

Iron is the chief remedy in menstrual disorders, and may be given at all times—before, after, and during the flow. A certain time in the life of the patient should be set apart for active and specific treatment. The time chosen should be when the symptoms are most aggravated. The days, one, two or three, should be set apart, and our treatment should always culminate to this period. If we fail at the one, then we should begin, and pursue our treatment until the second period, when the specific method should again be applied, and thus on. Even if failure should mar the first, second, or even the fifth period, the menstrution will appear, if the treatment be applied in a rational way.

Between the periods I always order the use of iron in three or four daily doses. I have used all forms and varieties, from the tincture of the chloride, which is so often objected to, to the different kinds the Pharmacopœia presents, in pill form, as the Blaud pill, simple or modified. My experience brings me back to Gude's Pepto-Mangan. Gude's Pepto-Mangan is now the most common in use, and there are so very many similar preparations in the apothecaries that care should be exercised in obtaining the genuine. I have a simple way of distinction. I always order Gude's Pepto-Mangan given with milk. If the mixture is clean, uncoagulated and palatable, then I know my patient has received what I ordered. For a further distinction, I invariably place on my prescription the name "Gude." My reasons are these: So very many so-called similar products are on the market that are inferior, and in a measure do not act in a manner you wish, clinically as well as physically. For my own defence, as I have been so frequently disappointed, I detect the fraud of substitution by mixing with liquids, especially milk; the "Gude" preparation always gives the palatable mixture.

I order of this preparation a teaspoonful in a wineglassful of milk every three or four hours, depending upon the patient's condition. If she be very anæmic, and with this very nervous, I place her upon the milk diet, and by the addition of Gude's Pepto-Mangan I reach my object, giving the food as well as the medicine. I increase the dose until a tablespoonful, three or four times daily. This treatment is kept up, and even continued through each period, until the purpose is obtained, perfect health, as regards not only the menstrual flow, but also the general physical condition.

Medical treatment is never sufficient in these class of cases, and failure is apt to result if no attention be given to other conditions; the very common class, the school girl who desires to reach the head of her class, or who studies for a prize or the like. Take the following case:

Case I.—E. L., age 17 years; large in growth, over 5 feet 8 inches; reddish hair. A student of the Girls' Normal School, preparing for the teacher's certificate, which required two more years of study after the graduation. Complains of constipation and headache. Has acne on each cheek. Has occasional attack of "nervousness," crying, etc. Her menstruation is scant, very irregular, and when it does appear, not more than one day, or probably one-half the next. Appetite erratic, though spoilt by the method of eating, as buns or cake or pie for lunch, whilst the breakfast,

huriedly eaten, was only a cup of coffee, or a roll. Her main food was the "upper dinner," when she was "too tired or too long hungered" to eat. Once or twice I was called to quiet an hysterical attack. In this case the pimples were the bane of the young lady's life, and while she was not anæmic in any sense, I placed her upon the (Gude's) Pepto-Mangan, telling my patient this medicine was for the pimples, and that I left the further treatment in her hands. This with purgative pills of aloin with nux vomica was the whole treatment. Vanity came to my assistance, as the patient desired to be rid of the eruption. Persistent use of the iron was the only medicine used, and whilst the schooling was persisted in, she passed through the period, and eventually recovered.

The second case is one that is too frequently met with, the child of the poor, who is sent too early to the "mill" or "store," and has never been taught the commonest rules of hygiene; the girl who spends her time in work, and whose only outing, a dance or picnic, is equally as hard work.

Case II.—Age 14 years. Attended school until 12 years, and then became a cash-girl in a department store. Rather large for her age. Flabby built, and of a distinct pallor. Complains of obstinate headache, relieved by the so-called bromos; indigestion, languor, sleepy during day-time, and at night a sleep that was heavy, unnatural, and disturbed by dreams; at intervals flushing with sensations of chilliness. Menstruation scanty, probably a half of one day, and very light in color. In this case work was a necessity, and even proper food could not be obtained. However, milk was the easiest and cheapest food, and from one to two quarts daily was the constant supply. To this food I added a teaspoonful of the Gude's Pepto-Mangan at each glassful, once every three hours, increasing until a tablespoonful dose was attained. This, with a purgative pill (the compound rhubarb pill of the Pharmacopœia), was the treatment persisted in for over eight months, with complete recovery. In this case the treatment was begun in the fall of the year, persisted in through the winter months, and during the following summer months a vacation of but two weeks was obtained, and the patient sent to the seashore by one of our charitable institutions. This patient was convinced of the utility of this method of treatment, as I found the following winter the same course was followed with a gratifying result, preventing any loss of time by reason of illness or otherwise.

I have also met with cases that the menstrual period came on correctly at a certain age, and continued so for a year or two, when, for some unknown reason, there was total suppression. There was no history of tubercular disease, nor could I obtain any certain cause. In one case marriage was undertaken as a hope for cure. This patient, aged 18 years, came to me with the following history:

Case III.—Mrs. B.; began menstruation at the age of 13 years; regular intervals until 15 years, when the flow became scanty and scantier until only a half day, and then entirely disappeared. She had not seen a flow for two years. Examination revealed the uterus two inches in length, somewhat anteflexed. The ovaries on each side could be felt, the size of an almond; the tubes could also be felt. This patient had been under the care of many physicians, and had had several operations, even a laparotomy, for the abdominal scar was visible. Nothing had been removed, she assured me, and the examination showed this also. Dilatation of the uterus had been performed, as well as curettement, for what I was not informed. She had also undergone electrical treatment. I treated this patient constantly for 6 months before a flow of blood was in evidence. My sole treatment was the internal use of the Peto-Mangan (Gude's) in tablespoonful doses in milk, and the use of a stem pessary for a period of nine months. After this time an examination revealed the uterus two and one-half inches in length, larger in size. The tubes could be felt, and the ovaries on either side somewhat larger. Monthly flows have now been the rule for the last three months. This patient is still under treatment, and while the iron is still persisted in, the result of the treatment is uncertain. I am firmly persuaded that many cases can be benefitted by a correct application of our remedies, and when applied for a certain purpose.

This last patient appeared hopeless, and at the start I had little hope myself that much could be looked for. It appeared as a case of early menopause. I have seen such cases, with atrophy of the organs. Here, however, this was stopped, and I have still hopes of seeing further improvement.

I have such good results in the use of Gude's Pepto-Mangan in septic diseases that I have applied it fearlessly in other conditions. None give better promise than those conditions that are coupled with the menstrual flow, especially when seen at the adolescent period.

517 Pine St.

Creosote in Pneumonia: A Resume.*

January 7, 1894, on account of indications of fermentation in the alimentary canal, I gave a patient, forty-eight hours sick with pneumonia, one drop of creosote every three hours. This was added to my ordinary prescription. I was surprised, on my return the next day, to find the temperature slightly subnormal and other symptoms correspondingly improved. The dose was reduced; the temperature went up. Again I gave a large dose, and the next day dismissed my patient.

I was so impressed by this observation that I began then, and have continued to this day, prescribing creosote in all cases of pneumonia.

In June, 1898, I read a paper on the subject before the North Texas Medical Association. This was received by some with incredulity, they citing the fact that "all authorities" (whatever that may mean) said that pneumonia was a self-limited disease, and must run its course. Others were willing to make a trial on my report, reinforced by that of several gentlemen present, who had adopted the treatment at my suggestion.

Quite a number of those present, and others who read the published paper, have reported satisfactory results.

In my former paper I mentioned that there was some unevenness as to results in different cases, some yielding in twenty-four to forty-eight hours, others continuing a week or more. I suggested that difference in the infecting micro-organism might account for this unevenness, favoring the idea that the pneumococcic-infected were most amenable to the treatment. This seems to have a probable corroboration in the reports of some others, written and verbal; but the absolute corroboration can be had only when the clinician and microscopist unite in the investigation.

My original prescription was ammonium salicylate gr. viiss., creosote gtt. i,. syrup ʒ i., every three hours. In some cases the creosote alone was given. Latterly I have given creosote carbonate gr. (or ♏) viiss., emulsified with acacia. Others give larger doses with possibly better results and no harm.

During all this time I have had cases in which the fever was gone in from twenty-four to forty-eight hours, and I am now somewhat disappointed if my patient is not ready for dismissal by the third or fourth day. In cases which persist longer there is generally an amelioration of symptoms and the coming of an appetite, to which I was formerly a stranger in pneumonic cases. There is generally a gradual decline in the fever, with only a slight moisture of the skin, a critical sweat being rare.

Another thing I, as well as others, have found, is that if the medicine is discontinued as soon as the fever has ceased, there will likely be a recurrence of all the sysmptoms. Hence I continue the medicine at longer intervals for two or three days after subsidence of the fever.

This recurrence of the fever in lobar pneumonia is a strong argument in favor of the improvement being due to the medicine, for, according to Austin Flint, in lobar pneumonia "relapse never occurs."

The mortality of pneumonia is, as given by Tyson, lobar 20 to 40 per cent., lobular 30 to 50 per cent.; Osler lobar 20 to 25 per cent., lobular 30 50 per cent.; Delafield, lobar 12 to 34 per cent.; Anders, lobar 15 to 25 per cent., lobular 25 to 50 per cent.; average of all, 22 to 39 per cent.

In these seven years I can now recall only four fatal cases of pneumonia in my practice. Two of these were under my care from the beginning of the attack: one following grippe, the other a measles case in most unsanitary surroundings. The other two patients were turned over to me in desperate condition: one sick a week, the other two weeks. I treated sixteen cases last winter, with no fatality; dismissing four on the second, five on the third, one each on the fourth, fifth, sixth, seventh, eighth, and two on the tenth days.

Within a year or two after my first observations I saw that some French writer was recommending cresote for broncho-pneumonia. In the fall of 1898 "The Doctor's Factotum" contained an extract from the London Lancet, reporting twenty-six cases of pneumonia treated with creosote, without a death, of much shoter duration, and with a better recovery than usual. Creosote was not given early in these cases.

Prof. Andrew H. Smith, of New York, in the Medical News, November, 1899, after citing several writers and his own experience, goes so far as to recommend that family physicians keep their patrons provided with creosote or one of the salicylates, preferably the former, as being better tolerated by the patient, so that in case of indications of an attack of pneumonia (pain in the side with chill), he may take the drug at once and probably prevent the development of an attack.

Dr. J. A. Gracey, in *The Charlotte Medical Journal*, December, 1899, says: "The treatment of pneumonia by the administration of creosote, was first brought

*By Dr. G. L. Zandt, Forthworth, Texas.

to the notice of the writer by a paper read by Dr. Van Zandt, of Fort Worth, Tex., at a meeting of the North Texas Medical Association. . . . My method is to give either drop doses of creosote every two or three hours, or ♏ x. or xv. of creosote carbonate in some simple menstruum. When given early in the attack the results are almost specific; the temperature subsides, the respiration improves, and in the course of twenty-four hours the condition of our patient is so much improved that we sometimes doubt our diagnosis.

"In later stages the results, while not so brilliant, are yet very satisfactory. The cough, pain, and temperature subside, the character of the sputum is changed, and recovery is hastened. And not only in pneumonia do we get such results, but in acute bronchitis as well.

"The method is worthy of trial, and one has only to use it to be convinced of its merits. Of course, the strength of the patient must be supported, the secretions and excretions attended to; and I am satisfied that we have in the creosote treatment as near a specific for the trouble as is known to-day.

"At the pediatric congress held in Marseilles in 1898, Dr. Cassoute, physician-in-chief to the Marseilles hospitals, gave a brief preliminary notice of his new method for the treatment of pulmonary affection. The method consists in the continuous administration of fairly large doses of creosote carbonate. In some cases of a typical fall of temperature occurred during the first twenty-four hours of treatment; and if the creosote carbonate was continued for a sufficiently long period of time the apyrexia was a permanent one. The temperature curve rose again, however, when the drug was discontinued, before the auscultatory signs had disappeared. Relapses and sequelæ, so frequently seen under other methods, were entirely absent."

Dr. Charles F. Stokes, United States navy, in the Brooklyn Medical Journal, August 1900, says; "I have employed it in several cases with excellent results. . . . Early treatment offers most satisfactory results."

Dr. J. W. Frieser, of Vienna, in The Aerztliche Central-Zeitung, says: "The treatment of acute inflammatory affections of the respiration passage with the drug has yielded entirely satisfactory and even brilliant results in my hands. Both clinician and practical physician are fully aware that we formerly possessed no remedy that was even half-way satisfactory in its action upon pneumonic disease process. Our entire therapeutic armamentarium was symptomatic and expectant in its nature. . . . But it is an unministakable advance if experience teaches us the employment of a remedy which has an influence on the disease process itself, and possibly upon the specific organisms that cause it. The favorable effects of creosote carbonate upon the various forms of pneumonia have been noticed by others as well as by me; and they are undoubtedly due to antiseptic and antibacterial action of creosote, which, in the form of the carbonate, can be introduced into the body in sufficient quantity and in innocuous shape. . . . Besides this it has a favorable influence on the heart and the patient's general condition; it causes, as I have often noticed, a rapid fall of temperature and retrogression of the local symptoms. The gastro-intestinal canal is in no way injured by its use. In some cases the inflammatory processes in the lungs got well with such extreme rapidity that the method might be called an abortive treatment. The temperature rapidly sank to normal, the general condition noticeably improved, the tongue cleaned and become moist, and the appetite returned. . . . Equally favorable results were obtained from the use of creosote in five cases of acute bronchitis. The action of the drug was reliable and the recovery of the patient rapid."

Dr. Wilhelm Meitner, in the Medicinisch-chirurgisches Centrallblatt, June 22, 1900, says: "The most important effect of the creosote treatment is the surprising fall of temperature a few hours after its administration is begun; it becomes normal in two days or sooner. With this the general condition improves, the pulse becomes better, the breathing quicker; the cough is lessened, thirst ceases, and the dryness of the mouth and lips disappears. Then the tongue cleans, the appetite returns, the entire course of the disease is cut short, and convalesence is about abrogated. Under creosote treatment I have never seen that weakness followed by a slow convalesence, which is the rule even in typical one-week pneumonias, under the usual medication.

"Some cases run so rapid a course under the treatment that it is hardly possible to give their history. A child falls suddenly sick, with a temperature of 102.2 deg. or more, and the pulmonary signs of an acute catarrh. After two or three doses of creosote carbonate in the next four to six hours, it is better; in twenty-four hours the fever and physical signs are gone; on the second day the child cannot be kept in bed. An adult with marked coryza suddenly begins to cough violently; the first large dose of creosote mitigates his cough, and in

twenty-four hours it has disappeared. To me, at all events, the favorable influence of creosote carbonate in acute pulmonary disease seems absolutely demonstrated. I am sure that its action is the quicker the earlier its administration is begun; that it is harmless and well borne in the doses that I employ; and that no other treatment at all is required in the class of cases under consideration."

Dr. M. Eberson, in the Aerztliche Central-Zeitung, July 7, 1900, says: "It has been customary, after the diagnosis of a pneumonia has been made, to admit the presence of a severe disease, requiring five to nine days to run its course. Creosotal von Heyden is now prescribed by the attendant. When he returns on the next day there is no trace of fever. The child is playing, it is hungry, bright and does not cough. Percussion and auscultation show no signs of inflammation. The physician, and more especially, the parents, begin to have a doubt of the diagnosis. But now comes the interesting part! Treatment is stopped; and behold! on the next day the subjective and objective symptoms of pneumonia are again present.

"Two things may, therefore, be claimed for the creosote treatment. In the first place, it cuts short the disease in a remarkable manner. In the next and more important, it causes complete resolution of the disease focus, so that the sequelæ, more especially after catarrhal pneumonia, will not be as important in the future as they have been regarded to be in the past. Nor does it seem to me to be unimportant, considering the bacillary origin of pneumonia, that the sputum and excreta are voided disinfected, so that the contagiousness is reduced to a minimum.

"It is incontestable that the creosote treatment of pneumonia is a very important advance in practical medicine."

Now, with this array of testimony reenforcing my own observations for the last seven years, I trust that the members of this association will not consider me oversanguine when I express the opinion that the use of creosote or carbonate of creosote in the treatment of acute pulmonary inflammations is one of tee greatest life-saving discoveries of the century just ended.

Prevention and Management of Infection of the Breast During Lactation.

Bacon (New York Medical Journal, Jan. 12, 1901) calls attention to the important and necessary distinction between infection of the breast and simple hyperemia or congestion of the breast. Infection of the breast, unlike the more or less painful congestion of the breast attending milk secretion, is generally attended with fever, and is often confounded with simple congestion, but is an entirely distinct process.

What is known as "milk fever" has been proved to be due to genital wound infection, for if there is no infection there is no fever. Hence the term "milk fever" should be abandoned. The consideration of the nature, cause, and the diagnosis of infection of the breast forms a basis for the study of its pophylaxis and treatment.

The infection germs are the staphylococcus pyogenes aureus, the staphylococcus pyogenes albus, and in some cases the streptococcus pyogenes. The first two are always, and the last is frequently, found on the skin and in the ducts of the cutaneous glands, and not only around the nipple, but also in the milk channels and in the milk drawn from sterilized nipples. It is doubtful if the streptococcus albus found in the milk causes infection, but there is no doubt that the bacteria found in great numbers on unclean nipples are a source of danger. Soiled clothing and the unclean hands of the mother or nurse are common sources of infection, and perhaps one of the most dangerous infecting agents is the head or hand of the child. Severe infection has been noticed in patients whose babies had boils on the body, or sore eyes, the pus from which became smeared over the child's face.

The general presence of an abrasion in the epithelial layer of the nipple in cases of infection, and the direct route from the erosion to the depth of the breast furnished by the lymphatic channels, favor the now generally accepted conclusion that the latter, and not the milk passages, is the route of the breast infection.

Simple congestion of the breast, a disturbing factor during the first days of lactation, is often attended with the tenderness of an infection, but chills, fever, etc., are absent. When these develop all doubt concerning the diagnosis between congestion and infection of the breast must cease.

The diagnosis between genital wound infection and breast infection must be made by a study of the predominant symptoms. The greatest difficulty is experienced when the symptoms of breast infection coincide with pelvic tenderness, distention of the breast, and soreness of the nipples. In such a case the determination may require some delay.

It is important to determine whether the infectious process has resulted in the formation of an abscess. The center of the in-

fection and abscess formation is often quite deep, and determination of fluctuation is difficult; in such cases the proper procedure is diagnostic asperation with the large hypodermic needle. Diagnostic puncture should be made if fever or local pains continue, in spite of treatment, for several days.

Improvement of the general health, both before and after confinement, is most important in the prevention of breast as well as all other infections.

General precautions are cleansing of the nipple with 75-per-cent. alcohol, and covering the nipple with sterilizing gauze.

The chances for abrasion of the breast are increased if the nipple is not easy to grasp, if the milk flows slowly, or if the child is nursed long.

A nipple shield should be used to prevent wounding of the nipple, and may be used temporarily or intermittently during the first four weeks of lactation. It should be thoroughly cleansed, after nursing, both inside and outside, by washing with running or boiled water, and then drying it with clean gauze. The use of boric acid solution for this purpose should not be tolerated.

Symptoms of chills and fevers generally indicate a deep infection of the breast, and nursing should then be stopped, the breast supported and put at rest by a proper bandage. If this is done, eighty to ninety per cent. of cases will determine without abscesses.

A double Y bandage, made of strong cotton cloth, consists of a back piece four or five inches wide and fourteen to twenty inches long, with two diverging strips at each end from four to five inches wide and about thirteen inches long. The lower part of the Y's is fastened in front under the breasts with safety-pins, and then the upper part in the same manner. With this bandage the nipple of the sound side may be left free. If a circalar bandage is used, with an opening to allow the child to be nursed from the sound side, the nipple and areola will have to be protected by a pad of gauze under the bandage.

To patients having abscesses of the breast, the method of infiltration anesthesia has been of great value; by its use an abscess may be opened without pain, and so may be opened early. A second or third abscess may also be attended to with little trouble and expense. After careful skin disinfection, a few drops of Schleich's solution No. 2, using an aseptic hypodermic syring, makes the short line of incision anesthetic. The pus, after incision, is washed out with sterilized water, and a few stile or iodoform threads are introduced for drainage. A strict antiseptic dressing is applied, the breast bandaged very firmly, and in twenty-four hours the drainage is removed. The wound is kept open by irrigation for a day or two longer, when it will generally close itself.—*Therapeutic Gazette.*

Home Treatment of Tuberculosis.

At a recent meeting of the County Medical Society, Philadelphia (*Medical News*, March 9th, 1901), Lawrence F. Flick presented a paper on the home treatment of tuberculosis. He said the three ends to be attained are the restoration of the physical functions of the body, hypernutrition, and the conferring of immunity. General practitioners should be more alert in making the diagnosis, an important early symptom being indigestion, persistance of which should lead to physical examination of the lungs. When the diagnosis is made, three things are to be done. First, acquaint the patient with exact conditions, as this may be necessary to secure his co-operation in the treatment secondly, explain to him that successful treatment means a long and presistant stauggle, lasting, perhaps, from three to five years; patients are often not cured when they seem to be, and treatment should be kept up after symptoms subside; thirdly, lay down a routine for governing the patient's life as to food, exercise, clothing, etc. These patients can often take large quantities of food—three to six quarts of milk, and six to twelve raw eggs daily. In regard to medication, antidiaphoretics and opium are avoided. The iodine compounds are first in value. Next is creosote, which is given in hot water before meals, in doses reaching 50 drops three times a day. Strychnine, arsenic, phosphorus, digitalis, and iron are of value. Use any drug that will help any organ. One of the greatest difficulties in the treatment is the occurence of complications, as colds, influenza, or pneumoia, either of which may cause a recrudescence. In event of their occurence, absolute rest in bed for several weeks must be insisted upon. The result of six years' work by Flick shows 18 per cent. of cures, with varying degrees of improvement in 55 per cent.—*British Medical Journal.*

Vomiting after coughing is generally due to mechanical disturbance of the stomach induced by the violent effort. In such a case let the patient eat but a moderate quantity at a time, and rest quietly after dinner.

A Wonderful Operation.

Our contemporary, the *New York Herald*, reports the following successful and wonderful operation which took place during the present war in South Africa. The story is a distinct advane on anything told by Rougemont, Munchausen, or Pinto, and poor Marco Polo is nowhere. It is rich in the originality and element of surprise that so delight the adult and the child. After describing the fatal wouud of an Irish solider, he tells how a Scotch Highlander went into the fight full of courage, and how a little later he passed a line of stretchers, on one of which, to his sorrow, he found the said Highlander, Angus MacTavish—for that was his name—on a stretcher, with his upper lip clean blown off by one of the guns of the enemy. He was a horrible sight, and the surgeon was more than concerned what to do for him. Suddenly a thought struck him, which he immediately carried into effect. He found the body of Patrick O'Hara, which was still warm, and, giving MacTavish an anæsthetic, he sliced the top lip off the dead Irishman and stiched it under the nose of the Scotchman. The operation was perfect, "though you may think me (he writes) conceited in saying so." A month or so afterwards he was in Pretoria, not having seen MacTavish since the operation. One day he came across him and was delighted to see him looking so well. Evidently MacTavish was convalescent. He stopped him and said, "Well, Angus, how goes it, my man?" To his astonishment he replied, in the richest Irish brogue, "Begorra, docthor, I'm as roight as can I be, faylin' illigant." You see, the fact of the lip being transplanted had transferred the accent also. This is the story, How we wish the name of the surgeon had been given! —*Medical Press and Circular.*

Laxation in Constipation.*

The successful treatment of constipation does not consist in simply momentarily relieving the overloaded intestinal organs, because some of the pathological conditions co-existing may persist even after this result has been obtained.

The fact that there is an intimate association between the intestinal and cerebral functions was early recognized by the ancients—a fact that shows the need of attending to the cerebral disturbances while correcting the pathological conditions of the gastro-intestinal tract.

The habitual use of purgatives is not to be encouraged, as it only increases the disability which they are intended to remove; and therefore it is essential that the treatment should be one aiming at permanent results as well as relief. And for that reason it is very often necessary to combine drugs that will not only relieve the constipation but also cure the other pathological conditions which have been brought about by the constipation itself.

Of late years many preparations have been placed at the disposition of physicians, and some of these preparations are certainly scientific combinations. Most of them contain such splendid remedies as belladonna, aloes, cascarin, etc., but of all the recent preparations which have come to my notice I have found the Laxative Antikamnia and Quinine Tablets to be the most efficacious in relieving cerebral disturbance, as well as curing the intestinal trouble.

A close study of this combination shows that it is a tonic-laxative, analgesic and antiseptic—and its administration in certain cases is sure to be followed with excellent results. For instance, in the sequelæ of typho-malarial cachexia, when a gentle and safe laxative combined with an antiperiodic is required, I have found this preparation of the utmost value. The co-operative or synergetic properties of these ingredients will readily commend themselves to the profession.—*Chicago Medical Times.*

*By J. A. Rene, M.D., West Superior, Wis.

Sodium Bicarbonate in the Vomiting of Pregnancy.

Monin (Lyon Med., January 27th, 1901) has been struck by the resemblance which the symptoms presented by certain pregnant women bear to those of hypersecretion. Gastric pain, heartburn, acidity, nausea, and vomiting, occurring especially in the morning and relieved by taking food, are all symptoms commonly observed both in hypersecretion and during pregnancy. Monin believes that in both conditions the stomach, instead of excreting only at the digestive periods, does so more or less continuously, although Kaltenbach and Jaffe state in the pregnant cases no excess of hydrochoric acid is present in the gastric juice as in hypersecretion. Satisfactory results have been obtained in the case of pregnant women by administering daily five doses of sodium bicarbonate, each consisting of 2 grams given in a capsule.—*British Medical Journal.*

Simple tapping, under full antisepsis, may be relied upon to relieve any hydrocele, and will cure a small percentage of cases.

The Diagnostic Import of Rigidity of the Abdominal Wall in Cases of Contusion.

Hartmann (*Bull. et Mem. de la Soc. de Chir.*, March 12th, 1901) adduces further evidences in support of an opinion he expressed in 1898, that the existence of diffused contracture of the abdominal wall in a case of contusion of this region is to be regarded, even in the absence of any other serious symptom, as a decided indication for immediate laparotomy. It is held also by Hartmann that in the absence of contrature, whatever may be the extent and gravity of the associated symptoms, surgical intervention in cases of abdominal contusion is contraindicated. Two cases are reported, in one of which laparotomy performed in accordance with this view revealed a laceration of the liver; whilst in the other, an apparently uncomplicated case of contusion, in which an operation was not performed, ended in fatal peritonitis. In both these cases there was decided rigidity of the whole of the anterior abdominal wall. Of ten cases observed by the author in which, in consequence of the presence of this symptom, laparotomy was performed, this treatment, which was found to be justified by the nature of the revealed lesions, proved successful in nine. In the tenth case, in which operative treatment was refused by the patient, death occurred from peritonitis due to rupture of the small intestine. Of seventeen cases of severe abdominal contusion in which no operative treament was applied in consequence of the absence of rigidity, all ended in recovery. —*British Medical Journal.*

Treatment of Neurasthenia.

W. Weygandt (Wurzb. Abhand., No. 5) says the chief factor in the treatment of neurasthenia is rest. It is generally advisable to treat neurasthenics in homes or sanatoria, and to remove them from the influence of their relations, etc. The treatment must last at least from six to eight weeks, and in severe cases much longer. Weir Mitchell treatment is necessary only in very severe cases. As a rule it suffices to put the patient in bed for a week, or in milder cases he is kept in bed for about ten hours a day. The rest must be mental and bodily. As the patient recovers light bodily exercise may gradually be allowed. Rest out of doors, and especially in the sun, is of great therapeutic value. Neurasthenics cannot get too much sunshine. The diet must be bland and easily digestible. Alcohol, coffee, and tea, as well as fat meats, acid (vinegar) food stuffs and condiments are forbidden. Milk must figure largely in the diet table, and the meals must be frequent. Electricity, either in the shape of faradism or galvanism, is useful, but he does not approve of franklinization. Weygandt prefers to employ the faradic current, either by means of one electrode resting against the soles of the feet, and the other, a roller electrode, to be gently brushed over the body surface, or in the form of faradic baths. Under the heading of hydrotherapeutics he prefers the methods as follows: A warm bath of ordinary or salt water is given on one day, a hydropathic pack on the second day, a faradic bath on the third day, and rest on the fourth day, and so on. Massage is to be carried out regularly and carefully. Certain classes of mild cases may be treated at different watering places, at certain seaside places, and at certain inland places of some altitude. During convalesence gymnastics in the shape of Zander passive movements or Swedish exercises are of use, and the author finds it more beneficial to the patients to give them useful light work than to allow such exercises as billiard playing, round games, or music. Bicycling is, under all circumstances, bad for the patient. Under the heading of medicinal treatment he considers that, of the sedatives, bromides stand first. Camphor, valerianate of zinc, opium, and codeine are sometimes also very useful. Palpitation of the heart may be treated by nitroglycerine. Anæmia must be dealt with by one of the many forms of iron—for example, peptonate of iron, liq. ferri album. (Drees, and others), and arsenic. For giddiness he uses ergotin, and says that the syrup of hypophophates has lately been much recommended. If medicated foods have to be given he speaks well of somatose, nutrose, tropon, and other preparations. He uses amyl hydrate, paraldehyde, trional, and sulphonal as hypnotics sparingly. Beside the massage he employs cascara sagrada, tamar indien, and liquorice, in treating constipation.—Brewer (Journ. Amer. Med., Asso., January 26th, 1901) regarding neurasthenia as a pathological exhaustion of the neurons arising most frequently from gastro-intestinal toxins, and the vasomotor mechanism as the first to show the effect and the degree of disturbance in vascular tension, propounds the following methods: (1) Rest, either partial or total, according to the severity of the symptoms, and to be enforced for from two to six weeks. For business men one or two hours' quiet and rest in a darkened room every afternoon, with absolute relaxation from business during that time. (2) Diet should contain proteid materials in abundance—eggs, milk, beef, and mutton being the basis. Sugar

should be used only in small quantity. Where dyspepsia is present malted milk, somatose, and partially peptonized food is given. In severe cases, where absolute rest in bed should be enforced, a cup of malted milk mixed with somatose is given every two hours. (3) Galvanism to all the muscles of the limbs *seriatim* once daily. The head and neck should be also treated with current of 1 to 3 miliamperes and using large electrodes, the abdominal muscles with 5 to 10 miliamperes. (4) Hydrotherapy, sponge bath, and the wet pack daily, the latter beginning with a temperature of 70 deg. F., and gradually lowered to 50 deg. F., and prolonged for about one hour. The wet pack promotes tissue metabolism, favors elimination of fatigue products, and promotes sleep. (5) Massage daily practiced, the movements at first being gentle and superficial, a sedative. Little by little the force, vigor and extent of the treatment should be increased. As the case progresses towards recovery physical exercises should be added. Outdoor cycling, golfing, and horseriding are also good. (6) Aperient drugs, such as a pill of aloes and strychnine, and an occasional calomel purge prove beneficial. Where renal deficiency is present diuretics, such as the effervescing potassium citirate are indicated. Neurasthenics are benefited by imbibing water freely. (7) Where there is much cerebral irritability the bromide of sodium in combination with a cardiac tonic—for example, fluid extract of adonis—is given. Where there is anæmia Bland's pill is the best preparation. The phosphates and hypophosphites, especially in the form of the compound syrup of the hypophosphites are excellent.—*British Medical Journal.*

Reduced Birth-rate.

A French statistican says that in spite of the increase of population in various countries, the rate of increase is steadily diminishing. Austria is really little better than thrn France in this respect, while Germany, which shows the largest increase of European nations, has a declining birth-rate. The United States, with its increase of 14,000,000 in the last decade, has the largest decline of birth-rate and would surely show signs of retrogression but for the steady volume of emigration. It is the old story of lessening of increase in accordance with the degree of luxury in civilization—*American Medicine.*

In pelvic peritonitis, the most frequent mode of infection is through the wall of a cyst which has become adherent to a diseased tube.

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Poisoning by Chlorate of Potash.

A case of death from an overdose of chlorate of potash is reported to have occurred in Philadelphia some weeks since. The victim was a woman twenty-five years of age, who had taken an ounce and a-half of the drug in two days for sore throat, when alarming symptoms supervened which resisted all attempts to save life. Chlorate of potash is so largely resorted to by the public who regard it as an inoffensive drug that is it well its poisonous properties in large doses should be made widely know. —*Medical Press and Circular.*

Another Xiphopagus.

Chapot-Prevost has found another pair of united twins which he is studying with interest. The twins are Chinese boys, 14 years of age, and are now on exhibition in a circus in Europe. The connecting band is comparatively long and and narrow, thus allowing considerable freedom of movement.

Pozzi Claims that, when cancer of the uterus is complicated by pregnancy, it is impossible to make a diagnosis of the pregnancy before the fourth month. Many cases of pregnancy are only recognized after extirpation.

Increase and Care of the Insane.

There is little doubt that the increase of the total number of the insane is in large measure an increase in the registered cases rather than in new ones. It is equally certain that the number of institutional cases is increasing, because of the decrease of the public disinclination to commit. This is a tribute to the beneficence of their work. On the other hand there is danger of overcrowding, or its actual existence in many parts of the country. Of the 7,417 patients in public hopitals and asylums of Massachusetts on October 1 last, something over 13 per cent. were sleeping on cot beds made up each night in the corridors and the day rooms. This, of course was deterimental to the health of the patients. In addition to the annual increase, the State is to assume the care, after 1903,of all the insane in the city and town almshouses. These now number about 900. In Connecticut, too, the number of insane is in excess of the public accommodations. There are 2,135 patients in the asylum at Middleton, which is 500 more than is room for, and the number is being added to at the rate of 100 a year. The building is crowded with humanity like cattle in a pen, a legislative committee reports, and in a garret they found 100 men packed in where there was room for but 20. The presentation of these facts hastened the appropriation by the legislature of $165,000 to increase the accommodations.—*American Medicine.*

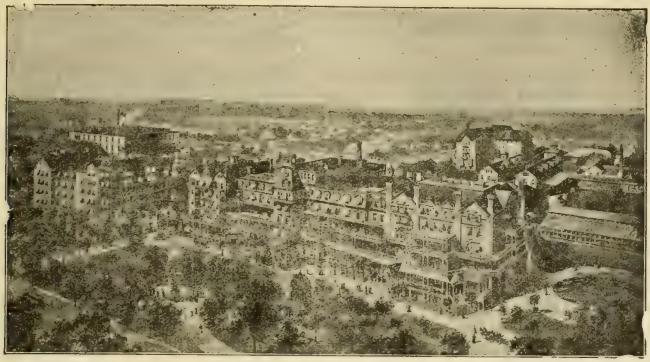
Syphilitic Basal Meningitis.

E. Hoffmann (Berl. klin. Woch., March 18th, 1901) describes a case of precocious syphilitic basal meningitis, which he considers of interest. The patient was 26 years of age. His past history showed that he had never been really ill before. On July 5th, 1900, eight days after coitus, he noticed two discharging sores on the penis. These were healed by a "barber," but appeared again about the end of July. About the middle of August he applied for treatment in hospital, and a Hunterian chancre was seen on the under surface of the prepuce. On the 27th a slight roseola developed. He was treated with subcutaneous injections of hyd. perch. (doses, gr 1-6). His symptom disappeared with this treatment. On November 13th severe pains developed in the temple on the side, and in the occipital region. Two days later he vomited and was seized with short attacks of giddiness. On December 9th double vision was complained of. His visual acuteness was deteriorated. A well-marked Bell's palsy was present; and the abducens nerve was also paralysed The taste sense was less acute on the left front portion of the tongue. There was well-marked optic neuritis. The tongue was protuded to the right. The diagnosis was made by summing up the lesions. These were complete right facial paralysis, right abducens paresis, weakness of the right hypoglossal nerve, and disturbance of sense of taste on the right side of the tongue, combined with severe headache and double optic neuritis. There could be no intracerebral lesions, as the symptoms were too localized. A gummatous affection of the bones was negatived by the short duration. Hoffmann, therefore, considered it to be a case of circumscribed basal meningitis of a syphilitic origin. The condition cleard up under anti-syphilitic remedies (mercury and iodide of potassium), leaving only a slight paresis of the facial muscles, and a minimal paresis of the abducens. He points out that the case is extremely rare, inasmuch as the meningitis developed 4½ months after the primary affection, and 2½ months after the secondary (rash) manifestions; which the localized character of the inflammation, and the development of the lesion, in spite of early energectic treatment, make it of considerable interest.—*British Medical Journal.*

A New Aphrodisiac.

The fertility of certain foreign therapeutists in the discovery of new aphrodisiacs is simply extraordinary, for all the world as if there were a ready market for drugs of this class. From a therapeutical point of view aphrodisiacs can have but a very limited field of usefulness; indeed, on thinking the matter over, we are rather at a loss to define ever so limited a field for their employment. The latest addition to the list is Yohimbin, the active principle obtained from a plant growing in equatorial Africa. Experiments have been made with this product on frogs and rabbits, and it is stated to produce marked hyperæmia of the sexual appartus. On this ground it is recommended for the treatment of sexual neurasthenia, and also in albuminuria, though we are unable to follow the train of reasoning which led up to this conclusion.—*Medical Press and Circular.*

Celerina restores the tired and jaded nervous system to its normal condition, and brings about a feeling of buoyancy that will be pleasing to both physician and patient. A fair trial will confirm the verdict of the medical profession all over the world as to the virtues of this preparation. It is put up in palatable form, and is always uniform in strengtn.



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Is a place where chronic invalids, especials ly those suffering from the various form, of indigestion, diseases peculiar to women, constipation, chronic malarial poisoning, anæmia, obesity, the uric acid diathesis-neurasthenia, migraine, and similar ailments are trained into health by the aid of systematic regimen, scientific hydrotherapy, massage, Swedish movements, Swedish gymnastics, and other rational means. Most cases of Bright's disease, diabetes, locomotor ataxia, and many other maladies which are incurable under ordinary conditions, are greatly improved by the combined use of rational remedies and systematic regime, and many are practically cured. Extensive bacteriological, chemical, and microscopical laboratories connected with the institution afford excellent facilities for accuracy in diagnosis and original research.

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THE SANITARIUM, Battle Creek, Mich,

The Klopfen Treatment of Tuberculosis.

The method of treatment of pulmonary tuberculosis known as the "Klopfen" plan consists in slapping with a silver paper-cutter the surface of the chest in front, behind and at the sides. A scientific examination into the advantages said to result from this process appears to justify the conclusions that this practice is really a powerful means of mechanically stimulating the pulmonary apparatus and of dissipating the tendency to congestoin, and in this manner promotes spontaneous healing of tuberculouss lesions. On the authority of Friedlander it is stated that the respiratory symptoms are at once improved, that a local reaction on the part of the lung tissue is evident in many cases, that there is an increased throwing off of the waste products, and that in a few days the patient is unmistakably improved in every respect. It is advised that in patients with hæmoptysis the vicinity of the lesion should, as far as possible, be avoided. Some observers hold that the procedure is a general rather than a local measure. The actual application of the Klopfen treatment is as follows: Thorax is bared and greased. A silver paper-knife of ordinary size is held with the wrist loose, and allowed to fall at rhythmic intervals on the surface of the chest, going systematically over the entire expanse, front and behind, but avoiding the mammæ, sternum, clavicles, and spine. Each sitting lasts about twelve minutes, and is repeated every other day for a month, when it is usual to omit the slapping for a week. The paitents complain of a certain amount of smarting from the treatment, but find the after-glow agreeable. According to one observer, in thirty-nine out of forty-six patients with hæmoptysis hæmorrhages did not recur after this treatment, but these somewhat favorable figures do not seem to be corroborated by other investigators.—*Madical Press and Circular.*

It is said that ten grains of powdered alum placed on the dry tongue will arrest an attack of asthma.

Beneficial action of Urotropine on Pyelitis; Also in Cystitis with Frequency of Micturition.*

With the great flood of new preparations which have swamped the profession in recent years, many of which are worthless or no better than many drugs and preparations we already possess, it is refreshing to come across some which are an undoubted acquisition to our means of combating the great army of diseases which the practitioner meets with in his daily round. No two cases of disease can be treated in exactly the same way and with the same drugs, as, in addition to a certain specific symtom in either case to which a certain drug may be applicable, there may be others which forbid a certain line of treatment being carried out in an individual example, *e,g,,* a fistula in an otherwise robust patient and the same condition in a patient with advanced phthisis and pyelitis. It is perfectly obvious that the treatment in the *two* cases must be entirely different. The first case is a very simple matter, while the latter is a much more serious condition both as to prognosis and traatment. In the former a simple operation is all that is necessary, with proper cleanliness, dressing, and, perhaps, a tonic; in the latter something more is required, and the condition of the urine will require a powerful drug that will act beneficially in controlling the putred condition of the urine, preventing decomposition. and so promote healing of the ulcerated surface in the kidney

In Utropine we possess a drug which is unique in checking this fœted condition of the urine and in controlling the dull aching pain in the loins which is such a common accompaniment of this condition. The following cases occured in my private practice :—

Case I.—Mrs, C., aged thirty, married for two years, without children. She had suffered for years with periodical attacks of pain in the right loin, especially if she caught cold, followed by turbid stinking urine, which gradually ceased after a few days' rest in bed, but the urine never entirely cleared up till the next attack.

Her then medical attendant never throughly grasped her case, and called it colic; he never associated it with the kidney nor did he examine the urine.

I had tried many drugs with only partial success, and nothing seemed to afford lasting relief until Utropine was brought to my notice; at first I was somewhat sceptical as to using it, as I had tried so many things previously that had been vaunted as possessing specific properties with no result that I was inclined to look upon it with the same incredulity. However, in a very severe paroxysm of pain, and the urine being very fœtid, I gave this drug a trial in 6 gr. doses with the happiest result; the pain was relieved in a very short time and the urine rendered free from odour or smell, and the pus corpuscles quickly disappeared from the urine, and the patient in a few weeks became free from the severe paroxysm that she had looked upon as part of herself, as she could not carry her mind back to the time when she was free from these attacks.

I had also the best results from another old-standing case of cystitis, where the patient, Mrs.B., aged thirty-six, with one child, had been operated on for the thickening (inflammatory) of the neck of the blaeder following enteric fever, resulting in almost total suppression of the urine. The symtoms after operation were frequency of micturition, with acute pain and an inability to empty the bladder completely. This had gone on for some fifteen years after operation, with little relief, unless after insertion of a suppository occasionally, but as this gave the patient very acute pain for a long time after, before any beneficial result, the patient naturally shrank from using this treatment, unless after a long period of suffering. I gave her 4 grs. of Urotropine three times a day, and after the first twenty-four hours she informed me she had not been so easy and free from pain for years, and she continues to recieve the same benefit. If after using it for some days she left it off, and the frequency of the micturition returns, she uses it again, she recieves the same benefit; she can now retain the urine for three or four hours without discomfort, so that her life has become quite bearable, and in marked contrast to what it was previous to using Urotropine.

Case III.—Miss H. B., aged eighteen. Has suffered from cystitis and inflammation of the neck of the bladder for four years, but did not like to speak about it until the pain and her condition became so agonizing thatit was a perfect misery for her to go out of doors at all, and she became thin and pale, with a care-worn expression of face and an appetite reduced to vanishing point, and, as she expressed it, her life became miserable, and she could not enjoy life at all. Her suffering becoming so great, she was examined by a specialist. He found, on examination with the endoscope, ulceration at the base and neck of the bladder. She was operated on, the surface of the ulcer being scraped, with no very marked relief at first, until Urotropine was given in 4

*By J. Pollock Simpson, M. D., &c.

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gr. doses three times a day. From this time onwards she put on flesh, and took her food with relish. The frequancy of mictruition lessened, until now she is able to retain the urine in the bladder for four hours at a stretch, whereos previous to this she had to micturate every half-hour. I do not know any drug that acts so beneficially in cystitis with frequency of micturition as Urotropine. It renders the urine clear and prevents decomposition, thus favoring resolution and healing of the parts.

Hysteria in the Male.

Among the less common conditions that crop up from time to time in the course of medical practice and are apt to furnish more or less dangerous pitfalls for the unwary, may be mentioned that of male hysteria. The most usual form appears to be that of stimulation of organic nervous diseases, but the age and the absence of definite and sufficient motive separates this class of cases from mere malingering. Diagnosis is rendered all the more difficult when there is a history of falls and of blows upon the head. Professor A. Hall discussed this question in an interesting article in the Quarterly Medical Journal for August, 1900. In discribing his cases he remarks that any record of them would have been superfluous had the patients been of the opposite sex. All who are familiar with the facts of general practice will at once realize the truth of the general statement that we are, as a rule, only too ready to diagnose hysteria in young females, when organic nervous diseases is in its early stages: but with boys it is quite the reverse. That being so, it is easy to accept this further proposition, that, from the point of view both of patient and of physician, it is much better so mistake hysteria for organic nervous disease than to call organic disease hysteria. It may be news to some of our readers that hysteria has been ascribed by some ingenious persons to a specific bacillus. An appropriate treatment has been founded on that assumption by Dr. G. M. Hammond, of New York, and consists in administersng in capsules pure fresh cultures of bacillus coli.—*Medical Press and Circular.*

The Newcastle Infirmatory seems destined to be the recipient of munificient sums of money. The committee have recently received a gift of £100,000 from Mr. and Mrs. Watson-Armstrong in memory of the late Lord Armstrong. The gift is without conditions, it being the sole wish of the donors that the work of completing the institution, which was founded to commemorate the late Sovereign's glorious reign, should proceed without delay. The conditions attaching to the Hall bequest are still under dispute.

The Town Council of Scarborough are about to erect an isolation hospital. Tenders for the buiding which have been recieved will, after some modifications reducing the cost, amount to an expenditure of £500 per bed. Naturally some of the members of the Council think this a high figure, but it does not appear that the plans have been referred to an expert, and it is probable that Scarborough will submit to the enormous expenditure asked of it.

Three representatives of the younger profession of Baltimore recently attended a smallpox matinee in a neighboring State. Their appearance created great enthusiasm. Variola received in a kimono of riotous designs. Of the Maryland guests, one wore a storm coat and a searchlight, another was attired in white pajamas and a tomato can, the third was sweetly gowned in a nightshirt decorated with the Ardor of the Gorter. They escaped.

Fat is a Factor in Politics.

The British Medical journal says: Cæsar wished to have about him men that were fat and slept o' nights: and looked upon those who, like Cassius, had a lean and hungry look as dangerous, The typical Yankee is still like Coleridge's Ancient Mariner,

> Long, and Lank, and brown,
> As is the ribbed sea sand.

This makes him dangerous to tyrants, and has doubtless had a good deal to do with his success in establishing the greatest democracy of which there is record in history. It may therefore be a fact of considerable political import that at least in New York the national type seems to be changing. Some observers of a statistical turn of mind have lately been taking stock of the man in the street as he is seen in New York. Among 1,000 New Yorkers from the age of 20 upwards over 28 per cent. showed an abnormal development in abdominal region. In a poor quarter the percentage of fat men was about 14, but in Broadway, where the well-to-do most do congregate, it was 37. In the corridors of the high-class residential hotel the number of obese individuals in a total of 100 was 70, while a humbler caravanserai the percentage sank to 11, the lowest point anywhere noted. Although, among 1,500 adults taked at random, 447 were corpulent to the degree of deformity, giving an average of 29.8 per cent. Among the effete monarchies of the Old World there is a stream of tendency to fat which may account for the slowness and sleepiness with which we are constantly reproached by our go-ahead cousins on the other side of the Atlantic. Perhaps it is on the principle "who drives fat oxen should himself be fat" that so many European rulers are men of weight as well as authority. From some interesting statistics on this subject that have recently been published, the greatest sovereign in Europe, for though he is short of stature he turns the scale at 13st. 2 lbs. It would be indelicate, if not indiscreet, to give particulars of the weight of some other exalted personages. It may, however, be noted as an interesting fact that the Reise-Kaiser, whose meteoric appearances in differnt parts of the globe in radid succession, with his winged words and impulsive telegrams on all manner of subjects, used to keep the world in a state of what Lord Salisbury (or an ingenious reporter) called "animated expectancy" has for some time past become almost a "heavy father" in the comedy of politics. It is a tempting subject of speculation how this comparativly reposeful attitude may be dependent on increasing bulk. If Louis XVI had been less protuberant in the paunch he might have kept his head on his shoulders. The leaders of the revolution were, as may be seen from portraits, mostly of the Cassius type; it is impossible to concieve a Robesqierre or a Marat as fat. Napoleon in his later years became fat, and according to Lord Wolseley this contributed no small degree to his defeat at Waterloo. Our own soverigns have for a century and a half been what the love-sick maidens in *patience* style fleshly men, of full habit, and Beau Brummell called, less æsthetically, "fat;" and it is not unreasonble to believe that this fact has had some influence in preserving our glorious constitution in vigorous vitality amid the crash of falling thrones and crumbling empires. Bismark at the height of his power had, like Cardinal Wosley, an "unbounded stomach," which could scarce be kept within reasonable compass by the severe maceration of the flesh enjoined by Professor Schweninger. Had he been fat in his yonth, it is more than doubtful whether he would have welded Germany together with blood and iron. Who can tell how far the massiveness of the Prime Minister's bodily frame may have helped to keep the peace of Europe by weighting the Pushfulness of leaner politicians? The *role* of fat in political physiology cannot be summed up in a simple formula; but for practical purposes it will be found tolerably safe to assume that thinness makes for revolution and fleshiness for repose, which, expressed in terms of politics, means Conservatism. The ideal demagogue is lean—*toermente par son carctere*, as Madame de Stael said Napoleon ought to have been. A man who has a full round belly, with good capon lined, is by the law of his physical being a Conservative, whose princple is *Quieta non movere*, though he may delude himself and others with the fancy that he is a radical. Those of our American friends who think that the well-being of the United States depends on the maintenance of a Republican form of government will do well to take steps at once to repress the tendency to abdominal expansion among their citizens, or they may live to see the President transformed into an Emperor.

Bromide of camphor is especially valuable in diminishing the attacks of epilepsy and undoubtedly diminishes the vertigo which accompanies this condition. Where the temperature falls below normal, the remedy should be immediately withdrawn.

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American Proctologic Society

Third Annual Meeting, held at Hotel Aberdeen, St. Paul, Minn., June 4th and 5th, 1901.

PROGRAM.

Order of Busines:

Executive Meeting.

a. Reports of Committees.

b. Reading of Papers and discussion of same.

c. Demonstrations by Clinics and presentation of specimens.

Dr. Martin will present:

1. A Case of Naevus in the Second Rectal Chamber.
2. Presentation of Specimen of Congenital Hyperplasia and Coarctation of the Rectal Valve.

d. Report of Committee on Progress of Proctologic Literature during the past year.

President—Dr. James P. Tuttle, New York.

Vice-President—Dr. Thomas Charles Martin, Cleveland.

Secretary-Treas.—Dr. William M. Beach, Pittsburg.

Executive Council:

Dr. Samuel T. Earle, Jr., Baltimore.
Dr. A. Bennett Cooke, Nashville.
Dr. J. Rawson Pennington, Chicago.

FIRST DAY.

1:30 p. m. Meeting of the Council.

2:00 p. m. Executive Meeting

a. Reading of Minutes.
b. Treasurer's Report.
c. Report of Council.
d. Reports of Committees on other than Scientific Subjects offered.
e. Unfinished Business.
f. New Business.

1:30 p. m. Reading of Papers.

Primary Tuberculosis of the Rectum and Anus with Report of Cases—Dr. Leon Straus, St. Louis.

Disease of the Sigmoid, Dr. George B. Evans, Dayton, Ohio.

Report of Two Cases of Valvotomy, Dr. Samuel T. Earle, Baltimore.

Treatment of Prolapse of the Rectum, Dr. J. Rawson Pennington, Chicago.

Foreign Bodies in the Rectum, with Report of a Case, Dr. Lewis H. Adler, Jr., Philadelphia.

SECOND DAY.

1:30 p. m. Reading of Papers.

A Study of Simple Ulceration of the Rectum from a Clinical Standpoint, Dr. A. Bennett Cooke, Nashville.

A New Method for the Painless Removal of Hemorrhoids, Dr. Thomas Charles Martin, Cleveland.

Anal Pockets, Dr. Louis J. Krouse, Cincinnati.

The Treatment of Recto Colitis, Dr. William M. Beach, Pittsburg.

Paper, Dr. George J. Cook, Indianapolis.

4:30 p. m. Executive Meeting.

Reading of Minutes.

Election of Members and Officers.

Miscellaneous Business.

Adjournment.

"Truth" Exposes a Quack.

Faithful to his programme, the editor of *Truth* directs attention to a certain institution called the Bilz Sanatorium, which is stated to be located in a castle in Dresden, and is described as the "largest institution in the world for the cure of diseases by the natural method of healing." Sufferers are invited to avail themselves of the system by the promise of "two beautifully bound volumes" devoted to this subject, free of charge, on condition of their becoming subscribers to the system at the rate of five shillings down and one shilling a week for twenty-five weeks. There is an intimation to the effect that in exchange for these payments such patients will be entitled to the services of "a competent physician of recognised standing holding the Edenburg degree." According to *Truth*, this physician of recognised standing is one Joshua Hamilton Hart, whose name was removed from the Medical Register in 1898 for infamous conduct. It is well that these medical frauds should be exposed, and we are grateful to our contemporary for having belled the cat.—*Medical Press and Circular.*

The Indiana legislature has passed a bill requiring all persons who practice the healing art to pass State examinations and obtain license. This bill will oblige Christian Scientist and all sorts of healers to comply with the conditions imposed upon regular medical men.

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The Results of Surgery in the Aged.

The general impression concerning the outlook of surgical operations in the aged may be summed up in the common remark, "Oh, he is too old to be operated upon," but a careful examination of the statistics of operations in elderly patients justifies a more sanguine view. The old adage that a man is as old as he feels, and a woman as old as she looks, is a tolerably safe guide in determining the momentous question whether to operate or not. Sprightly, energetic old men, of sanguine temperament, withstand surgical procedures remarkably well, while flabby, wrinkled, dried-up old women succumb very easily, even at a less advanced period of life. On the other hand, the class of elderly women described as well-preseved, with bright eyes and clear complexion, often prove capital surgical patients. The question must be decided principally on the results of examination of the heart and kidneys. Organic valvular disease of the heart is not necessarily a bar to operation, but the presenee of fatty or other form of tissue degeneration is of serious import. With respect to the kidneys, the presence of a trace of albumen and occasional hyaline casts in old people is not of great moment, and such persons often prove very successful subjects for operation. Old people are peculiarly susceptible to surgical shock, hence the importance of celerity in completing all extensive operations. According to the statistics recently published by Dr. J. P. Tuttle, of New York, the morality is less among the aged poor than among the higher classes of society, a fact which may be due to their greater endurance, or perhaps to their perforced less self-indulgent lives. In any case the result of the scrunity of statistics seems to show that while age is a factor which must not be lost sight of its significance is not necessarily as great as is usually supposed.—*Medical Press and Circular.*

Dr. Smithwick of La Grange, N. C., in January, 1901, No. of the Maryland Medical Journal, says:

When, in disease, bed sores occur we must use the best means for healing them and making the patient comfortable. In my experience I have tried a great many things, but have come to the conclusion, which is substantiated by clinical results, that I obtain the best results by thoroughly washing the parts with warm normal salt solution, bathing in peroxide of hydrogen, and dressing in pledgets of cotton or strips of gauze soaked in Ecthol. This dressing is repeated once, twice or thrice daily as the urgency of the case seems to demand.

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Colchi-Salin Obscure Gouty Manifestations.

Gout was formely considered as limiting itself to "high livers" but the idea is now completely exploded. We know that it is closely related to inflammatory and painful disturbances of all joints, to neuralgias, tonsilitis, and other acute and chronic lesions of the air passages including asthma, and that gout is essentially a break or interruption in metabolism that expresses itself only exceptionally in the articulations. Many authorities take a broder view and look upon it as a failure of the metabolic functions under conditions that produce no such outward results in the majority of people. The essence of the disease is the production of imperfectly soluble waste products difficultof eliminatin. The cause of gout is therefore function failure. Roughly speaking, the bulk of metabolism occurs in the muscles; further, the commencing channels of excretion are emptied by vigorous muscular contraction. Exercise flushes the joints with their viscid and sluggish fluids.

No absolute theory of gout troubles based on mere diet will answer all requirements of the clinician. Many functional disturbances in various forms may arise when seemingly there is nothing to occasion them, all of which however are generally relieved by Colchi-Sal. Gout may or may not be due to the presence of uric acid in the blood, but these symtoms are due to toxins which are formed by the action of one of the intestinal bacili on the intestinal secretions, specially altered by diet, which alteration is assisted by hereditary predisposition.

Many of these manifestations which appear to be functional are of the nature of congestive or inflammatory disorders. This is true with reference to the prostrate, the uterus and ovary, and rarely the intestine. In some of the cases of apparent appendicitis, for which no cause can be ascertained, anti-gout treatment is recommended before operative measures are undertaken and the same applies to cases of recuring appendicitis in adults, which should never be operated upon until proper and preliminary treatment has been followed out with Colchi-Sal. The so-called gouty dyscrasia is prone to affect the circulation, the nervious system, or the skin; and in each case the general treatment is of the greatest importance.

Colchi-Sal which is a *compound colchicine mehyl salicylate*, dispensed in 20 centigramme capsules, each of which contains one-fourth *of a milligramme of pure crystallized colchicine dissolved in natural methyl salicylate from betula lenta.* is now so largely adopted, that it may almost be considered the classical treatment in all gouty or rheumatic manifestations.

Everything in the actian of Colchi-Sal contributes to drainage from the economy of these noxious agents, whose abnormal accumulations and retention in the blood determines an attack of rheumatism or gout.

Dr. Laborde, the savant member of the French Academy, has systematised the use of Colchicine in gout, and fixed the rules for its administration and use. According to these rules, Colchi-Sal should be given as soon as gouty symptoms appear, in the follwing doses.—

1st day,—Four capsules, four times a day, at a quarter of an hour's interval each (16 capsules per diem).

2nd day.—Three capsules, four times a day (12 capsules per diem).

3rd day.—Two capsules, four times a day (8 capsuels per diem).

4th day,—One capsule, four times a day (4 capsules per diem)

Interrupt the treatment 6 to 8 days, and if all symptoms have not subsided, recommence the same treatment.

The above course of treatment may be used during a full attack of gout, or as a preventive where there are characteristic premonitory symptoms.

It is well to remember that successful results are not obtained with the cheap substitutes for the orignal Colch-Sal Capsules, and that their administration only leads to disappointing failures to relieve the patient.

In catheterization of the over-distended bladder it is always well to aid the process by pressure on the abdominal wall. This is best done by a binder which may be gradually tightened, thus avoiding syncope and the entrance of air into the viscus. If air enters, the chances of infection are greatly increased.

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Coughs, Bronchitis, Phthisis, Asthma, Laryngitis, Pneumonia and Whooping Cough.

Glyco-Heroin (Smith) has passed the scrutiny of both clinical and scientific investigation and its therapeutic value has been well defined and established by prominent men in the profession of medicine.

Each teaspoonful represents one-sixteenth grain Heroin with

A true exact solution of Heroin in Glycerine.

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to enhance the palliative effect of Heroin and to embody decided curative properties in this preparation.

Glyco-Heroin (Smith) places at the command of the physician and for his convenience a most superb and finished remedy to be accepted and used by him as an ethical preparation with physical characteristics and therapeutic properties far excelling all other remedies of the Materia Medica and Pharmacopœa for the treatment of Coughs in all the various forms.

Adult dose—one teaspoonful.

The quantity ordinarily ordered by the physician is two, three or four ounces.

Physicians are requested to write for samples.

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Cerebral Abscess in a Child of Sixteen Months.

F. E. Bunts reports the case of a child aged sixteen months, who, about six week, before coming under observation, had recieved a scalp wound from a piece of tin. No particular attention was paid to the matter, and various applications were made, but the wound did not heal. Three days before the first visit the child had had a convulsion, and it was noticed when it was examined that there was a slight paralysis of the right arm and leg. The latter increased and involved the same side of the face. The knee jerk was easily elicted, though it was difficult to get a reflex at the elbow. The question of diagnosis rested chiefly between the possibility of its being an infantile paralysis, or a paralysis due to abscess of the brain following a septic infection of the scalp. The symptoms persisting, it was decided to operate, and, the scalp having been laid back, a fissured fracture of the skull was found with a portion of the bone penetrating the dura and also the cortical substance of the brain. There was also some bulging of the brain substance. A grooved director was inserted into the brain in various directions without at first discovering any pus, the presumptive point of puncture being about the region of the leg centre. In view of the fact, however, that the paralysis of the leg had slightly improved while the paralysis of the arm had become practically complete, and that the facial mucles were now involved, it seemed probable that a deeper puncture might reveal the abscess. This was done, and about an ounce of pus was evacuated. The patient did well for awhile, but finally died at the end of two weeks. The autopsy showed the dura to be tightly adherent to the bone, and the brain to be very soft. Pus was found in various parts of the brain, and it had gravitated down as far as the foreamen magnum. The pus found at the base of the brain showed a pure culture of streptococci.—*Cleveland Journal of Medicnie*, April, 1901.

Chemical food is a mixture of phosphoric acid and phosphates, the value of which physicians seem to have lost sight of to some extent, in the past few years. The Robinson-Pettet Co., to whose advertisement (on page vi) we refer our readers, have placed upon the market a much improved form of this compound, "Robinson's Phosphoric Elixir." Its superiority consists in its uniform composition and high degree of palatability.

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American professional patriotism is fully justified by our history and is a laudable sentiment. We doubt if a judicial summing up of the contributions of national physicians would show for any country a greater share of discoveries made and of beneficent professional work done than by Americans. It may not be forgotten that the first cholecystotomy, the first nephrectomy, the first gastrectomy and the first ovariotomy were performed by American physicians. Many similar things might be mentioned, especially, of course, the discovery of anesthesia by an American. Pathology is the scientific branch *par excellenee* of medicine and in 1839 Dr. Samuel D. Gross brought out the first text-book on this subject. None knows better than we that in its last analysis science has no nationality nor geographical limits, and yet scientific temper and methods do, as a matter of fact, differ in different countries, and the progress of our science and art is colored if not conditioned by these distinctive differences. It was not without a recognition of the characteristic advantages and excellencies of American medical science that we chose the title of the present journal. We wish it to reflect, stimulate and unify our national medical progress, a progress well prepared and as certain of a great future as of a distinguished past.

"Love thou thy land, with love far-brought
From out the storied past, and used
Within the present, but transfused
Thro' future time by power of thought."
[*American Medicine.*

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This apiol we do not at any time supply in bulk or in any form other than our Ergoapiol—(Smith).

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Extraordinary Fecundity.

One of the Italian journals has recently recorded an extraordinary case of fecundity of which it guarantees the authenticity. Flavia Granata, who it appears is well known at Rome, has recently given birth to her sixty-second child. This woman is now fifty-nine years old. She was married at twenty-eight years of age, and has successively given birth to a daughter, then six sons, then five sons, then four daughters, and then a long series of twins annually, and ended recently by having four sons. It is much to be regretted that this interesting woman did not marry earlier, as she thus lost ten precious years of her life, and so missed the distinction she might have enjoyed of being the mother of a hundred children.—*Medical Age.*

The monobromate of camphor is suggested in acute nasal catarrh.

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Special Offer to Physicians | On application we will send an order on Messrs. W. C. Stronach & Sons, Raleigh, N. C., R. L. Christian & Co., Richmond, Va., or the nearest grocers who carry our goods for sample [illegible] | **Farwell & Rhines Watertown, N. Y.**

English Drunkard Legislation.

An Habitual Drunkerd's Bill introduced in Parliament recently by the Bishop of Winchester proposes novel methods of protecting the wife and children of the habitual drunkard by punishing saloon-keepers who sell drink to the habitual drunkard. The bill proposes the establishment of a black-list of persons declared to be habitual drunkards, whose names are to be notified to the keepers of licensed houses within a specified area, with a direction not to serve them, and also makes the offence of being drunk when in charge of a child punishable by a special penalty. The status of an habitual drunkard is acquired by a man being within twelve months three times convicted of certain offences found by the court to be due to or helped along by drink. In such cases a man is to be declared an habitual drunkard. The order so declaring him is then to be sent to all license-holders within a certain area, and also to the chief police officer for the district. Serving such a drunkard with intoxicating drink renders the license-holder liable to a fine of $50 for the first offence and to a fine of $100 for subsequent offences, the drunkard also being liable to a fine of not more than $5. An alternative penalty is that instead of fining the saloon-keeper $100, his license be suspended for three months. The license of any saloon-keeper so convicted is to be endorsed accordingly. From the favorable consideration which this proposed bill has received, it is considered reasonably certain that some of its features will become law. —*Medical News.*

The value of quinin in labor has frequently been discussed, and many contradictory reports have been elicited. Its power to initiate uterine contractions is a much debated question, but its value as a stimulant is undoubted; and it has frequently proved useful in maintaining general strength and good uterine contractions. Fussell (Therapeutic Gazette, January, 1901,) has used the drug in over 100 cases and finds that it produces strong intermittent, quickly recurring contractions, exactly resembling normal labor pains, and entirely different from the tonic contractions produced by ergot. He has found it much more useful in multipara than in primipara, and has never observed that it possessed a tendency to produce bleeding, although Hirst claims that in certain susceptible individuals it will occasionally cause violent postpartum hemorrhage. He administers the drug in doses of 15 grains, and considers that it prevents rather than produces hemorrhage.—*American Medicine.*

The Thyroid Treatment.

There is perhaps no subject which has elicited more investigation as a therapeutic resource, in this period of general rapid advance in medicine, than the employment of the Thyroid Gland as a remedial agent.

The Thyroid treatment is specific in simple goitre, myxedema, cretinism and obesity; is of great value in congestion of the pelvic organs, menorrhagia, endometritis, and other gynecological and obstetrical cases; while the reports made of its employment in lupus psoriasis, schleroderma, ichthyosis and other skin diseases of an intractable nature have been such as to warrant further experiment. Prostatic enlargement, melancholia and mental disorders, especially those of the puerperal and climacteric periods have been greatly benefitted by it.

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Scientific and Practical Facts About Diarrhoea.

Prof. White of the University of Dublin proved by careful detailed studies as to the action of Angier's Petroleum Emulsion upon the various micro-organisms that inas much as petroleum offers no food for bacteria, they cannot thrive in this medium; consequently petroleum is both aseptic and antiseptic. By an elaborate series of laboratory experiements, Dr. White found that the petroleum emulsion inhibited alcoholic, lactic and butyric fermentation, as well as the growth of putrefactive bacteria which have their natural habitation in the intestinal canal.

Dr. W. D. Robinson, a well-known authority on diseases of the stomach and intestines states in Medical News (July 14, 1900):

"I have extensively given petroleum and salol four times a day, and reclaimed the oil from the feces and found it contain some salol and its components, phenol and salicylic acid. This proves the carrying of a chemical antiseptic and antiferment through the entire canal. It is a solvent of iodine, sulphus, betanaphthol, naphthaline, menthol, thymol, camphor, and iodoform." By combination of any of the antiseptics mentioned with petroleum a germ-free condition of the intestinal canal is assured, and which is not, according to the highest authority, obtainable by any other means.

Dr. Fothergill, director of the Clinical Laboratory, Manchester Hospital, England, employed the unusually large resources of his clinic to determine how infantile diarrhoea could be satisfactorily treated. This authority reported (Medical Chronicle) "Petroleum Emulsion was used in thirty-four cases. One child died. In the remaining cases recovery was rapid and complete. There was no derangement of the stomach, vomiting ceased almost before the diarrhoea was checked, and the stools soon recovered their normal color and consistency. The emulsion seemed also to favor recovery from the accompanying bronchial catarrh. These experiments seem to prove that infantile diarrhoea can be treated successfully without tne use of opium or astringents."

It is for these reasons—inhibition of germ life, sedative, healing action on ulcerated and inflamed intestinal mucous membrane, etc., that Angier's Petroleum Emulsion has been so successfully employed in constitutional and intestinal affections associated with diarrhoea.

How Infection is Spread.

In spite of the general rise of the popular intelligence in matters relating to the public health, it is, nevertheless, clear that a great deal has yet to be accomplished in that desirable direction. To take one point, namely, the spread of communicable diseases. We are almost daily confronted with gross violations of the fundamental law that directs the isolation of the infectious sick. Unhappily, careless and reckless exposure of the kind is by no means confined to the poorer classes of the community, for we hear not infrequently of well-to-do folk taking their fever-striken children about the country in cabs and railway carriages. At a recent meeting of Burton Rural District Council a sanitary inspector detailed some of the practical difficulties in the way of enforcing isolation. At one house he found a neighbor's child playing with three children peeling after scarlet fever, a communion that was naturally enough followed by an outbreak of several fresh cases. On another occasion three children, who were still suffering from scarlet fever, attended the funeral of their grandfather. There were fifty-three persons present at the ceremony, and twelve at the house after the funeral. In this case the District Council very properly determined to institute proceedings against the parents. To allow children to attend a funeral under such circumstances is clearly to court disaster of the gravest kind from a medical point of view. In spite of disheartening experiences of the foregoing types, it is nevertheless the bounden duty of local authorities throughout the kingdom to keep a tight hand on preventive measures, which form in themselves a valuable means of popular education in sanitary matters.—*Medical Press and Circular.*

The sum of $5000 has been appropriated by the aldermen of Louisville for free public baths.

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Erysipelas.

Idiopathic and Traumatic usually yield readily to local treatment with Antithermoline.

The following are a few of several reports from the erysipelas ward of a leading Chicago Hospital by Dr. H. E. Betz, the others were equally decisive:

Estella E. Aged six, poorly developed and nourished; family history negative. Had been under treatment for scarlatina three weeks previous to admission. Admitted April 22, 1900. With desquamating entire anterior cervical glands, which showed evidence of suppuration. The entire glandular tissue had sloughed, leaving a large canty about the size of a pigeon's egg, until sheath of the sterno-cleido and external jugular veins were exposed. Wound was dressed with the usual germicidal cleansing solutions and various dusting powders, with no marked effect.

This treatment was kept up for one week, then Antithermoline was tried, cavity being first cleansed with solution of boric acid and Antithermoline applied daily. In ten days entire canty had granulated in with only a small cicatrix remaining.

Erysipelas of the Leg Following Injury.

Gustav L——. Male, aged 40, well developed and nourished, venereal history denied, marked lesions of previous syphilitic attack present.

One week ago bruised his right leg in region of anterior surface of middle tibial third (in which region are several syphilitic ulcers), his leg began to swell and became extremely reddened as high up as the knee; he developed chills and fever on the same day. On admission, May 17, 1900, three days after its onset, entire leg and thigh became involved. Temperature, 103 deg. F., patient showing signs of mild delirium.

Inguinal lymphatic glands much enlarged. Erysipelatous inflammation now at its height.

Locally: Hot applications of Antithermoline. This was left on for twenty hours, and on removal redness seemed to be stationary, with marked reduction of patient's temperature, which now registered 100 deg. F. On the third day all signs of inflammation had fled. Temperature normal; applications were made daily, and on May 23, 1900, six days after admission, he was discharged. In addition, Mag. Sulph. was used to regulate bowels.

Fever controlled by T. Aconite and Ferric Carb. Grs. v, t. i. d.

Facial Erysipelas.

Lawrence C.——. Male, aged 40, habits very intemperate. Four days previous to admission had severe chills, high fever and vomiting with headache and very severe lumbar pains, followed 24 hours later by severe burning of face right side in region of external auditory meatus, with marked redness in region named, rapidly manifesting itself, until now on admission, four days later, entire face and head are involved, both eyes being closed from swelling June 12, 1900.

In addition to the Antithermoline treatment I have used, for Catharsis: Mag. Sulph. and Ol. Ricini, exclusively. Temperature controlled by Tr. Aconite or Veratrum Viridis; also Ferri Carb. Grs. iij, t. i. d.

Temperature, 104, deg. F. Respiration, 32. Pulse, 120. On same night patient grew very delirious. Antithermoline was applied to face, head was shaved for considerable area, and same was also covered with the paste, applied hot. Next morning temperature had dropped to 101 deg. F. Dressings were applied daily, and on fifth day all redness had diappeared, and all signs of facial Erysipelas. On 7th day the left forearm showed signs of another attack; this was treated in the same manner. This patient had several relapses, but was finally discharged cured fifteen days after admission.

Facial and Occipital Erysipelas.

Erysipelas following traumatism. Simon H.——, admitted April 16, 1900, stated that a week ago he was struck in left eye by unknown person; several days later had severe chills, followed by marked rise of temperature, swelling of eye becoming more marked daily, with increase of eye pain, redness extending across nose to other side of face on admission. Examination reveals face, left eyelids greatly swollen, and especially upper one presents numerous small pinholes from which a greenish pus exudes, eyelids slightly agglutinated, marked redness, with swelling and induration; has indulged in alcoholics freely. On admission Antithermoline dressings were applied.

Internally, Tr. Veratrum Viridis every 2 hours.

Ferri Carb. Grs. iij, t. i. d.

A day later eyeball was pushed outward from abscess of eyelid, which was freely opened and Antithermoline applied every 12 hours for first 10 days; patient entirely well in 23 days, with no impairment of vision following. H. E. Betz, M.D.

Syrup of hydriodic acid has been used with the best of results in chronic rheumatism.

The Action of Antiperiodics on the Malarial Parasite.

Lo Monaco and panichi (Il Policlin., February, 1901), studying the effect of quinine on the malarial parasite *in vitro*, find the degree of resistance to quinine or parasites in the first stage of development is very high throughout the whole course of injection (corresponding to an equivalent of 12 to 15 grams of quinine in the circulation). Parisitic forms in the second stage of develment (with small pigment masses at the periphery or at the centre) offer a variable resistance to quinine, high during apyreria, and so low during the febrile attack as to be easily overcome by medicinal doses of quinine. Clinically the early doses of quinine checked the development of parasites in the second stage, and prevent their progress into the third or segmentation stage. Repeated doses of quinine kill those parasites which, owing to their great resistive power, were able to escape the effect of the initial doses. In the "pernicious" forms of ague, although the blood from the finger may not show more parasites, if the condition of the spleen and other organs is examined, the total quantity is greater than in the milder form. In those "prenicious" cases which recovered it was somtimes found that the parasitic resistance to quinine became lower even before improvement was observed in the symptoms, so that from this fact a favorable prognosis could be given before anthing appeared in the symptoms to warrant it. In one case as much as 12 grams of quinine was given subcutaneously in 48 hours, without any symptoms of poisoning. Quinine seems to act directly on the parasite, hindering its futher development either by killing it whilst it is attached to the red corpuscle (when the quanity of alkaloid is strong) or (when the solution of quinine is weaker) by setting the parasite free and letting it fall into the plasma, where it becomes swallowed up by phagocytes. Probably antiparasitic substances are found in the system naturally, and do their part in getting rid of the malarial parasite, for many people recover without the aid of any drug.—*British Medical Journal.*

An attempt is being made by the City Councils of towns with seaports to secure from the Government the expenses incurred by the Port Sanitary Authorities, it being maintained that the benefits are to the general community, not solely for the local inhabitants.

Pulsatilla is the remedy par excellence for headaches at the menstrual ephoch.

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COLDEN'S LIQUID BEEF TONIC is invaluable in all forms of **Wasting Diseases** and in cases of **convalescence from severe illness.** It can also be depended upon with **positive certainty of success** for the cure of **Nervous Weakness, Malarial Fever, Incipient Consumption, General Debility, etc.**

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Is a reliable **Food Medicine;** rapidly finds its way into the circulation; **arrests Decomposition of the Vital Tissues,** and is **agreeable to the most delicate stomach.** To the physician, it is of incalculable value, as it gives the patient assurance of return to **perfect health.** *Sold by Druggists generally.*

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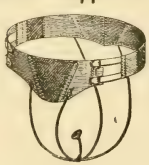

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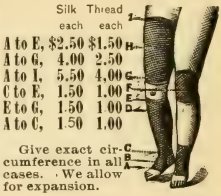

Give exact circumference in all cases. We allow for expansion.

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1005 Spring Garden St., Philadelphia, Pa.

The "Papyros Ebers."

Believing that physicians, of all men, are most interested in the history of their art, the makers of Hemaboloids are now prepared to present to their friends in the medical profession a fac-simile reproduction of the beginning of the earliest medical treatise extant, together with transcription into hieroglyphics and translation of a portion of the text.

The famous "Papyros Ebers," which was written during the reign of the Egyptian king Bicheres, 3,500 years ago, was discovered by the celebrated archeologist, Georg Ebers, in 1872, when an Arab brought him a metallic case containing a papyrus roll enveloped in mummy cloth, which he claimed had been discovered between the bones of a mummy in a tomb of the Theban Necropolis. A complete description of the papyros and its history is included in the reproduction and is certainly extremely interesting to physicians and antiquarians generally. A copy will be forwarded by The Palisade Manufacturing Company, Yonkers, N. Y., to any physician who may have failed to receive one.

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It is serious news that the plague has attacked the troops at Capetown. So far we have reports that one soldier of the Queen's Regiment at Simonstown, one in the 1st Royal Irish Regiment at Greenspoint Camp, and one in the Royal Garrison Artillery at the Castle with other Europeans have been attacked in addition to the native population which has suffered.

The legislature of New York State are making stringent regulations in regard to the sale of poison. All bottles in which specified poisons are sold are to be marked "Poison," and the address of the seller clearly printed. The sellers are to keep a careful record of all poisons sold, together with the date and the name and address of purchaser.

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Treatment of Night Sweats in Phthisis.

J. Strassberger (Therap. Monatsh., March, 1900) finds that although atropine given internally is very powerful in checking night sweats, its exhibition is certainly harmful to the digestive functions of the patient. Many external applications have been suggested, and among these formalin and alcohol painted on the body gives good results. The disadvantage (that is universally recognized) lies in the effect of the formalin vapor on the eyes and respiratory organs. To prevent this effect ingenious devices have been adopted to confine the vapor to the body of the patient, but they require great care in adjustment, and the author also dislikes dealing with formalin unless the doctor or trained nurse can apply it personally. He therefore has sought for some other form of formalin, and finds in tannoform a very useful drug. It is harmless, and therefore can be given to the patient to apply himself; it does not irritate the skin as pure formalin does, and yet it acts as well as the other drug in checking the sweats. He uses it as a dusting powder (1 in 3), applies it by means of a pad of cotton wool. His results, he says, amply justify him in recommending the use of this preparation.

Pain in Abdominal Operations.

The fashion that has lately sprung up of performing operations for hernia and laparotomies under local anesthesia has raised a certain amount of discussion in regard to the amount of sensitiveness in the various tissues of the abdominal cavity. Some operators are of opinion that pain in abdominal operations or in peritonitis takes its original only in the parietal peritoneum, whilst the other abdominal contents are devoid of painful sensations. It is the experience of a surgeon who has done a large number of operations under anesthesia, produced according to Schleich's method, that any manipulation in the abdominal cavity involving the parietal peritoneum is sure to be accompanied by acute pain, and this is especially noticeable on the application of retractors, or the walling off of the operative field, by means of gauze compresses. This fact furnishes an explanation of the pain of intestinal colic, and also of peritonitis, the latter beginning only when the parietal peritoneum participates in the inflammation and the former being due to the acute traction exerted on the parietal peritoneum, and not, as generally supposed, on the actual distension of the gut itself. The practical lesson to be deduced from this would appear to be the advisability of employing a general anesthetic, except where it is absolutely contra-indicated, under which circumstances abdominal operations should be commenced with light ether narcosis, for which local anesthesia might be substituted during the less painful manipulations, ether being again used when the more painful operative procedures, such as the removal of pads and the insertion of sutures, are undertaken.—*Medical Press and Circular.*

Blessed be the Postmaster-General!

An order is expected soon formally granting authority to postmasters to allow carriers, during the heat of summer, to clothe themselves in a humane manner. We have often wondered at "the inhumanity of man to man" displayed in no more striking manner than in the regulations as to clothing in the public services. The men are not allowed sufficient clothing in winter unless they put on several suits of underclothing beneath the uniform, which makes them look like bloated toads or overfat boys about to burst through their coverings. In summer the brutal stupidity of their roasting should, if real cruelty appealed to their sensibilities, long ago have aroused the anti-vivisectionists to an upsetting of political parties. As all physicians know, this abuse has a distinct medical aspect. Protecting the body and feeding it are the two oldest of all human functions, and yet of all our arts and trades there is nothing so blunderingly and badly done as our clothing and cooking. If the Postmaster-General shall issue the proposed order, the American people should make him President if he desires the office, or give him a dozen or two good sized islands in which to set up a new empire. We should be able to hope that our policemen, firemen, soldiers, sailors, etc., might in time, by imitating the good custom, be allowed to clothe themselves as if their rulers had some innate kindliness of heart combined with some acquired common sense.—*American Medicine.*

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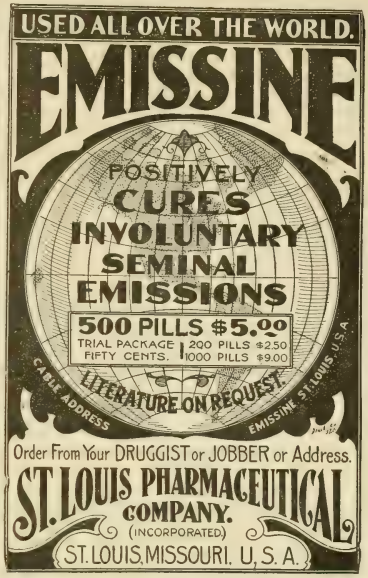

Enteric or Typhoid Fever.

In objecting to the continued use of the term "typhoid fever," Dr. Myers (page 929) raises a point of considerable interest. If we have erred in this respect it has been in excellent company. It is perfectly true that "enteric fever" is the official name adopted in the Nomenclature of the Royal College of Physicians and in the official returns of the Registrar-General and of the Army Medical Department. We doubt, however, whether the name "typhoid fever" is not more widely employed in medical literature. Turning to Quain's Dictionary of Medicine under "enteric fever," the only information given is "see under typhoid fever." Throughout the whole of Sir William Jenner's classical lectures on typhoid fever, republished in 1893, the name "enteric fever" is never used. And on the merits, there is much to be said in favor of "typhoid fever" and against "enteric fever." The former name we owe to Louis, who in 1829 wrote of *fievre typoide* and the name was adopted by Alexander Stewart in 1840. It presents no ambiguity, and so far from being regarded as "a painful record of ignorance," may rather be considered as embodying the history of the steps by which Stewart and Jenner placed its separate identity beyond doubt. On the other hand, the name "enteric fever" conveys the impression that the fever is the result of the intestinal lesion, which is more than doubtful. Well-authenticated cases of enteric fever have been described by Bryant and others in which no intestinal legions could be found *post mortem*. Many medical men, furthermore, object to call a fever "enteric" in which, as often happens, there are no enteric symptoms. There is very strong reason for objecting to the use of the word "typhoid" as indicating enteric symptoms. The use of this single word may lead to confusion between the specific disease and the "typhoid condition" which is common to many diseases. On this point it may be argued that as there is risk of the word "fever" after "typhoid" being omitted, it is preferable to use the word "enteric," and there is some force in this contention. There is further force in the argument that "enteric fever" is the name adopted in the official Nomenclature. Even were this name not on the whole the one most free from objection, its official status should, we think, secure it general acceptance, as uniformity in nomenclature is a very desirable end. We must sum up, therefore, in favor of "enteric fever."—*British Medical Journal.*

The Business Outlook in Medical Practice.

The ratio of physicians to total population in the United States is rather more than 1 in 600. The 120,000 physicians are dying at the rate of about 25 to 1,000. To make good the deficit of physicians by death, about 3,006 should be graduated annually. The population is also increasing at the rate of about 1,300,000 annually, and this increase could accommodate some 2,100 additional graduates in medicine annually. In 1899, according to statistics of the Bureau of Education, all of the Medical schools of the country graduated not quite 5,000. Thus, statistically considered, there is a very slight favorable tendency toward the reduction of a tremendously overcrowded profession.

On the other hand, it should be remembered that as a country increases in density of population, it can support fewer physicians. For instance, European countries with a ratio of approximately 1 to 2,000 of physicians to population, support their medical professions even more poorly than does the United States. Moreover, sanitary science and medical and surgical skill, as well as more wholesome modes of living, are markedly reducing the work of the profession. The well known fact that a fifth or sixth of graduates do not practise is little comfort, as this has always been the case. and it simply denotes the unfavorable conditions against which the medical man has to contend. Thus it is the urgent duty of every physician, by fair argument and reasonable means, to create a sentiment against the entrance of young men upon medical studies, unless they are especially fitted for their pursuit.—*Philadelphia Medical Journal.*

Hot-Bath Fatalities.

Of all the dangers that beset the up-bringing of the necessary baby there is none more horrible than that of being scalded to death in a bath. From time to time distressing cases of the kind are reported in the public press, with the usual jury verdict of "death by misadventure." In a Paris hospital a short while since a nurse put a child suffering from measles into too hot a bath, with the result that the child died shortly afterwards. She attempted to hush up the matter, but by chance the father found on the body marks which led to the discovery of the actual cause of death. It is somewhat difficult to decide how the culprit should be dealt with under such circumstances. An oversight that in unskilled hands may be treated with some amount of leniency assumes another and entirely different aspect when the active part in the tragedy is played by a trained nurse. It is taught in every ambulance class in the United Kingdom that the temperature of a hot bath should be carefully tested before being used by a patient. The proper way, of course, is to use a bath thermometer, whereby the proceeding is reduced to a scientific level. In nine cases out of ten, however, the degree of warmth is estimated by the rough and ready plan of putting a hand into the water for a moment or two. The fallacies of that test are serious. The hand can be immersed for a few seconds in water that would scald by a longer exposure; while, as a general rule, the hand can withstand a higher temperature than the rest of the body. The old-fashioned nursing-class rule is to test the bath with the tip of the elbow. In every hospital it should be made a law, binding as that of the Medes and Persians, that every hot bath should be gauged with a thermometer. Certainly a nurse, who had scalded a patient to death by a neglect of that precaution, should never be permitted to nurse another.—*Medical Press and Circular.*

Another Dispensing Fatality.

Another dispensing error, followed by fatal results, is reported from Birmingham, where a practitioner sent some pure tincture of iron instead of the medicine to a young patient suffering from typhoid fever. This is the third or fourth accident of the kind within a few weeks, and the fact suggests some grave misgivings. In two of the four cases already published the mistake was due to the carelessness of unqualified dispensers, and a few more such mishaps would give urgency to the question of obliging medical men to employ only qualified pharmacists as dispensers. In the other two, including the one under consideration, the error was committed by the practitioner himself, and is attributable to the fact that men in busy practice who do their own dispensing have to get through with it as best they can under circumstances which can hardly be regarded as favorable to accurate, to say nothing of careful work. When a prescribing physician makes a slip the pharmacist has an opportunity, of which he is always quick to avail himself, to avert disaster by referring the prescription to the physician for correction or confirmation, but no such safeguard is forthcoming when the physician dispenses instead of prescribing. This is no doubt why in many countries the law forbids physicians to dispense, thereby taking a huge responsibility off their shoulders.—*Medical Press and Circular.*

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Philanthropy for Consumptives.

One of the gravest aspects of the problem of caring for consumptive persons is that of the diminished wage-earning capacity of those who suffer from the disease during many years. Not only must a majority of tuberculous patients support themselves during the long struggle against progressive inroads of infection, but in many instances the care of others is also a burden on them. When the semi-invalid is forced to seek a different climate in the hope of cure, he finds himself, even when that hope is to a degree realized, brought into competition with more robust personalities that demand no favoritism in the struggle for a livelihood. Sometimes the consumptive secures work by accepting wages lower than the prevailing scale; thus he becomes at once a disturbing factor in the labor market. The establishment and maintenance of sanatorium settlements where consumptives may become self-supporting in whole or in part without coming into competition with other labor, may prove a partial solution of the difficulty. It may be commended to philanthropists as a charity measure that is practically free from the objection of "pauperizing" the recipients of the aid given.—*American Medicine.*

Must the Family Doctor Go?

Obliquity of views and extravagance of expression are among the venial sins of some of the modern newspapers. To deal in paradox is their specialty, and they exercise this privilege nowhere more rashly than on the subject of medical practice. For instance, one of our metropolitan dailies (by which expression we mean, of course, a New York newspaper), recently wrote a sort of obituary notice on the family doctor. On the authority of a fashionable specialist, this newspaper announced that the days of the general practitioner are numbered, and that in the near future the specialist and the trained nurse will monopolize the field. Even as it is, the functions of the family doctor, it thinks, can be performed just as well, if not a little better, by a well-trained nurse. Moreover, the specialist to occupy the field, will be the surgical specialist—the man who stands ever ready with knife in hand, because, according to our New York newspaper, the day is rapidly approaching when all, or nearly all, diseases will be cut out bodily. In this promised golden age, all that will be necessary will be for a well-trained nurse to recognize the disease and call in the surgical specialist who will proceed to cut it out and hand over the patient again to the nurse, who will keep him aseptic and return him to business in due time.

All this sounds like persiflage, and was probably written by a man with his tongue in his cheek, but we take note of it because it represents superficially a kind of criticism that is growing too common. The family doctor is not doomed to extinction. Far from the day of his decline having come, the day of his greatest usefulness is only just beginning. It is evident, however, that he must, in one sense, be a specialist himself, i. e., he must have special alertness of mind to recognize disease, and to know what remedy is needed. But the field of preventive and domestic medicine is largely his own, and will continue to be his. He will always occupy a position of great advantage, for he stands at the threshold. He will continue to dispense his patronage to the specialist, and they will know him when they see him. But he must be thoroughly trained for this work.—*Philadelphia Medical Journal.*

Censured "in Absentia."

A glaring instance of unjustified censure by a coroner's jury was afforded by the proceedings at an inquest held at Sheffield a few days ago on the body of a child who had died without medical treatment. The mother stated that she had sent several times to Mr. McElligott, who had promised to attend but had failed to do so. Thereupon the Coroner, not unreasonably, remarked that, while every medical man was free to refuse to attend when asked, if he promised to go he ought to do so; and the jury endorsed these remarks by appending to their verdict an expression of opinion to the effect that there had been neglect of duty on the part of the medical man. With the Coroner's remarks and the jury's finding, in the abstract, we cordially agree, but on condition that the incriminated practitioner has been afforded an opportunity of giving his version of the story. In the present instance this elementary precaution appears to have been omitted, with the result of inflicting grave injustice on Mr. McElligott, who explains in a local newspaper that his non-attendance was due to the fact of an erroneous address having been given in the first place. Unfortunately, the exonerating explanation may pass unnoticed by many who read the report of the inquest, and it ought to be a rule with coroners never to allow a person to be censured unless an opportunity be afforded him of explaining and, if possible, of controverting the allegations.—*Medical Press and Circular.*

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Mr. Andrew Lang once uttered a somewhat ungenerous gibe about the large number of scientific "celebrities" who are quite unknown to the world at large. The fact is, of course, due to the character of their work, which the public unfortunately neither understands nor cares about. The same thing to a great extent holds good in respect of the fame of great physicians and surgeons. But we were scarcely prepared to hear, as Dr. St. John Roosa, of New York, lately stated, that the name of not a single doctor has a place in the Hall of Fame of the New York University. When the trustees were appointed to select names to place in the muster roll of men entitled a niche in the American Pantheon, not one member of the medical profession was considered worthy of a place either on the committee of 150 or in the Hall of Fame. Thus does mankind delight to honor those who of all men whose sphere of work is the visible vale of tears in which lies its way of life do most for its good! Another striking illustration of the extremely limited character of medical fame is afforded by "a list of the most prominent men and women who have lived in the nineteenth century," lately published by Truth. Though the word "prominent" is used in the widest possible sense, being applied to such very minor constellations as "Peter Pindar" and Abraham Hayward, it appears not to be sufficiently elastic to include more than two or three members of the medical profession. The list includes numerous poetasters, fiddlers and buffoons, singing men and singing women. But we do not see in it the nrmes of Lister, Pasteur, Simpson, Claude Bernard, or Helmholtz; the moral of which is that those who, like the American gentleman in Martin Chuzzlewit, "apirate for fame," will do well not to choose medicine as a sphere for the exercise of their genius. From this point of view it is better to be a mountebank or a dancer than a doctor.—*British Medical Journal.*

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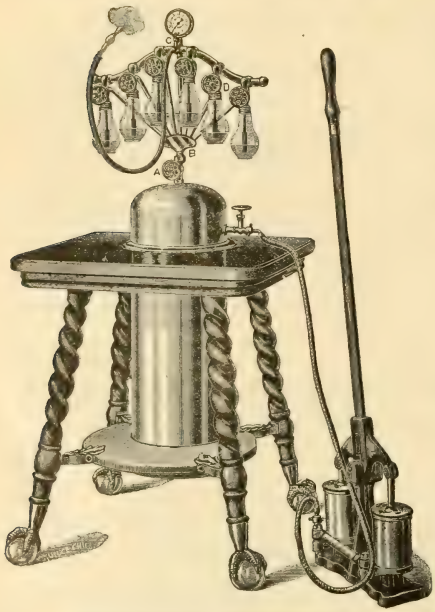

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The Charlotte Medical Journal.

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Medical Society of North Carolina—Annual Meeting at Durham.

Presidents' Address.

By Julian M. Baker, M. D., Tarboro, N. C.

Members of the Medical Society of the State of North Carolina. The first meeting upon the threshold of the new century, and the second half century of the Society's existence, is a suitable occasion for congratulation that medicine is now a science, and, in this progressive age of the world's history, is keeping pace with the development which characterizes other branches of human knowledge. The Superstition, dogma and ignorance, which has marked every era in its history, has given place to truth, to close and accurate investigation of nature's laws, resulting in an intelligent, earnest, scientific application of them to the accomplishnent of the objects sought.

We congratulate ourselves, too, that in the great advancement in civilization and enlightenment, in scientific achievement, in consummation of great undertakings, which mark the century just passed, no insignificant part has been played by the profession to which we belong, and, that this Society, in the half century of its existence, has been a factor in this march of progress. It has exercised an influence in shaping the history and destiny of our people. Its impress has been felt upon individual character and upon State. Its effort has been to alleviate human suffering, to upbuild mankind, for the elevation of professional character, and the advancement of science.

While this is true, while much has been accomplished in the past, that degree of perfection to which we aspire is not reached, much yet remains to be done before our destiny is fulfilled. My distinguished predecessors have from year to year suggested for your consideration various plans for the welfare of the Society and the profession, many of which have found fruition in the very desirable and almost perfect condition of the laws of the State regulating the practice of medicine, and in the exceptional high standard of requirement of the Board of Medical Examiners. Very few, if any, amendments are needed to the laws, the standard of requirement cannot be raised much higher than it is, under existing conditions, our effort should be to emphasize the position already attained, to enforce the laws already enacted, and to maintain the standard already established. To do this, to increase the usefulness and importance of the Society in the State, it is suggested that some measures be adopted that will increase the membership and create additional interest in our annual meetings thereby increasing the attendance. Since the organization of the Society in 1849 with a membership of 25, the number has increased until in 1901 it is about 500. In 1867, the date of re-organization after the war, the membership was 228. Whether this bore a larger ratio to the number of physicians then in the State, we have no means of ascertaining. We believe the proportions was larger then than now, when there are 1,600 physicians in the State, and only 500 members of the society. There are at least 500 physicians in the State whose membership is desirable, who are not connected with the Society. Since 1895 there have been 201 new names added to the roll. The average attendance for the past five years has been 183, While new names are being added old members are dropping out, the death rate has been small, the largest number dropping out for non-payment of dues. Some means must be devised by which the old members can be retained as well as new ones added.

The enforcement of the medical laws can be accomplished only in those communities which have been educated to the conviction that they are necessary for the protection of the people and for the general welfare. None exercise so potent an influence in shaping public sentiment along this line as the members of the medical profession. Every name on the roll means one more to co-operate in futhering the objects and purposes of the Society. Violations of the law are more numerous and more openly defiant now than ever before, and some means must be devised to punish the offenders. The difficulties confronting an effort of this sort, on the part of the profession, are chiefly the reluctance to take an active part for fear of being charged with an improper motive, and, in the case of failure to convict, the reaction is in favor of

the one prosecuted, who poses as a martyr to the jealousy of the physician instigating the prosecution. Another difficulty is the arbitrary construction of the law given by each judge before whom the cases are tried. What constitutes the practice of medicine and surgery as contemplated in the act seems to be the feature which is causing the most perplexity. The law should be so amended as to define "The practice of medicine and surgery." It should be written on the statute books so plain and in such unmistakable terms, that the mere administration of drugs of some one else's compounding should not be the only prohibitory act applicable to itinerant quacks, osteopaths, faith curist, christian scientist, magnetic healers and all that class of harpies which have been swarming into the State. The practice of medicine and surgery should be defined to be, what it is, "The practice of the Art of healing". "The Science of the Preservation of Health and of Treating Diseases for the Purpose of Cure," just as it is defined in the dictionary, and just as it is in reality. Should this amendment be made to the law, there would be no further license by judicial dicision of so-called doctors under the title of osteopath, curist or scientist, of various degrees of quackery. It is earnestly desired that you take some action in this matter. Admitting that it is necessary for the welfare of the Society, that its usefulness should be increased and its benefits extended, some means of increasing the membership must be devised, something must be done to increase interest in the annual meetings, and this amendment to the medical law must be secured. How can these objects be accomplished? It is suggested and recommended for your favorable consideration that, as a preliminary, encouragement should be given the organization of County Medical Societies under the auspices of the State Medical Society. When the Constitution was amended a few years ago and the status of the County Society destroyed, a step backward was taken; instead of abolishing them, means should have been devised for making them more efficient in organization and scientific work. Wherever a well conducted and working County Society exists, the State Society has a valuable auxiliary in every undertaking, and an enthusiastic, regular and valuable attendance at the annual meetings from its membership. What more potent in influencing public opinion in favor of the plans and purposes of this Society than an organized body of active and intelligent supporters in each County in the state? At its stated meetings opportunity would be offered for scientific discussion, social intercourse, and the cultivation of an esprit de corps which would have its natural outlet in fostering and enconraging the desire to attain membership in the parent body. Some provisions might be made by which members of these County societies might become members of the State Society upon proper recommendation, upon payment of dues etc; such membership might carry with it a subscription to the official organ, provided, you should decide that such action was desirable.

It is argued against the County Society, that petty jealously and disagreements of local competitors are sure, sooner or later, to arise and make the maintainence of the society impossible. Doubtless this would be true in many instances, but even should the County society disband for such cause, membership in the State Society might be retained, and in all instances these unfortunate conditions would not arise. With a well organized, active society, the enforcement of the law would not be so difficult, and the tendency would be to increase both the membership and the attendance at the annual meeting.

As a futher means of adding to the interest of the annual meetings, it is suggested that more time be given to scientific discussion and less to routine business. As part of this program, it is recommended that each Chairman of section and leader of debate be required to signify his willingness to perform the duties, and to assure him that the appointment is not intended as an idle compliment, but that the scientific work and interest of the meeting will depend on his efforts. If he is unwilling to give such assurances, then some one else should be appointed, It might be well, also, to select some distinguished member of the profession from abroad to address each meeting on a subject of general interest.

It is recommended for your consideration that a fund of $1,000.00 be raised and invested to be known as "The Prize Fund of the Medical Society of the State of North Carolina." That this entire fund be awarded to the member of this Society, who shall make an original discovery which shall prove of lasting benefit to humanity, said award not to be made until fiive years after the announcement of the discovery. This would stimulate the younger, as well as the older members, to increased effort along the line of original research, with the assurance of lasting and enduring fame as well as material gain, to crown success. Should the discoverer die before the determination of the value of the discovery, provisions should be made to

pay the fund to his dependants under certain conditions.

These suggestions are made with the idea of simply directing your attention to some of the needs of the Society. Doubtless, many other measures which would promote its welfare will occur to you during the session.

In conclusion, gentlemen, let me thank you for the honor conferred in calling me to preside over your honorable body; to be elevated to a position once so ably filled by the two Haywoods, Pittman, Thomas, Satchwell, Wood and O'Hagan who are numbered among our honored dead, and in later years by Lewis, Thomas, Murphy, Payne, Picot and Long, is a distinction which no one could fail to appreciate. Coming to me, as it did, at my home, among my own people, I assure you words cannot express my sense of gratitude for this evidence of your confidence and esteem. Gentlemen, I thank you again.

Pneumonia and its Treatment.*

By John C. Rodman, M.D., Washington, N. C.

I suppose that an apology might be appropriate to this Honorable Body for reading a paper on such a hackneyed subject, as the Treatment of Pneumonia; but we must recollect that this is no uncommon disease, and by no means without its mortality rate, and though it is what is considered a self-limited one, the individual mortality can be materially reduced by timely and proper treatment. It at times plays sad havoc in the homes of the beautiful and rich, cutting down the flower of the flock, as well as in those of the poverty-stricken and miserable, taking from them, perhaps, their mainstay and reliance. No class, no race, no age, and no sex is exempt, and as it attacks all; likewise most of the drugs of the pharmacopea have been at one time or another in some shape or form used in its treatment. There has been no specific drug claimed in the treatment of this disease unless it be the injection of the pneumonia antitoxin, and I take it, that this is still in the experimental stage. So, as before stated, though it may be a much hackneyed subject, it is still a very important one, requiring for the successful treatment of a bad case, as much individual skill and good judgment, as is requisite, for any disease in the category of the general practitioner.

There have been numerous attempts at classification, according to locality, as lobar, lobular, apical, central and broncho. Still again, as to the exudate, fibrinous or croupous and catarahal. Still again, such terms as typhoid pneumonia, billous pneumonia and malarial pneumonia have crept (improperly I think) into the nomenclature of this disease. It is true that we may have as a complication of pneumonia, almost anything that human flesh is heir to, and vice versa, but why should it be called a "typhoid pneumonia" because it happens to be a pernicious case, having such symptoms as a constant delirium, carphologia and subsultus tendinum. The term to say the least, is still a misleading one.

They, who are considered authority upon this subject, say that "this disease is caused by the invasion of the lung, by a variety of bacteria, oftenest by the diplococcus pneumonia, and characterized by a fibrinous inflammation of the lungs, and a variety of symptoms in part due to the absorption of toxins from the lungs." The diagnosis is usually considered easy, except in young children where it is most apt to be overlooked, and the fever attributed to something else. But in adults the sudden chill, sensation of tightness in chest, pain on coughing, rapid breathing, together with the physical examination, usually makes it a comparatively easy matter.

Now comes the question, what course or method shall we pursue in the treatment of pneumonia?

It is generally conceded that in the majority of cases of an unfavorable termination, that the cause of death is due to the action of toxins absorbed from the lungs, on the vital nerve centres. As there is no specific medication, and as the disease in question is a self-limited one, our efforts must be towards strengthening and sustaining the vital forces of our patients until the crisis is passed. To have our patient in such condition that the heart, the vital organ most concerned, will be able to withstand the severe strain put upon it. There can be no fixed rule for our guidance in these cases, but each individual case is a law unto itself.

It is said at the present time by those eminent in authority, that venesection has killed more than it has ever cured, but we must not forget that the pendulum may swing too far, and hence be of detriment to our parents.

There are certain cases in which the abstraction of blood is followed by beneficial

*Read before the North Carolina Medical Society, at Durham, N. C.

results without which, judging from our own personal experience, bad results might follow.

Take a case of this kind: B. R.—— negro man, age twenty-two, fisherman, taken with sudden chill while standing waist deep in water engaged in his occupation, severe pain in both sides of chest, shortness of breath, a great sense of tightness and constriction, and feeling as if he could not get enough air, was put in a sail boat and brought thirty miles to my town, with all symptoms increasing. On his arrival I found him in great distress, some crepitant rales in both lungs, with dullness, respiration 40 to the minute, nostrils dilated, unable to lie down and breathe and a full bounding pulse of 95.

It seems to me that the patient was almost in extremis and would die from suffocation. I had about decided that this, if any there were, was a case for the abstraction of blood, and was getting ready to do it, when there came on an unusually free nasal hemorrhage. I sat down and watched events. After there had been about a half pint of blood-flow, the patient's expression seemed changed, less like an extremely sick man, the pulse became softer and somewhat reduced in rapidity, breathing became easier so that when hemorrhage had ceased patient could lie down fairly comfortable. This was about four o'clock in the afternoon, and on my visit next morning I was informed that all symptoms and method of relief had been repeated about midnight and patient was then fairly comfortable. He had dullness in both lungs, and the typical rusty-colored expectoration of pneumonia; after a variable and somewhat irregular course the fever became normal in about two weeks and patient recovered with little other medication,

I only cite this case to show that there are some, though I think few, in which venesection is the proper treatment in the early stages.

My observation has been, that those cases which in the beginning have a good full pulse, not too rapid and not irregular, will need but little medication other than careful nursing and good nourishing food, which will be easily digested. Should the temperature go beyond 103 deg., sponging with cold water and a small dose of phenactine and dovers powders to reduce it will do no harm, and then 20 or 30 grains of bromide of soda, or 15 grains of trional at night to quiet nervousness, and produce sleep will be all that is required.

I cannot protest too strongly against those nauseating cough remedies consisting of ammonia, opium in some form, and syrups of every kind, given every hour or two with the idea of increasing expectoration and aiding in expulsion of exudate, but really accomplishing in many cases, nothing more than to increase the nervousness of your patient at the idea of taking something every hour or two and destroying the digestive tone of the stomach. These cases by a careful attention to the details of nursing will pursue a favorable course unless there be some unexpected complication.

In pneumonia, the action of the heart if carefully noted, will aid you most in the proper treatment to pursue and in your prognosis. It is the organ most vitally effected by the action of toxins, and its failure is most often the immediate cause of death.

I believe that the most valuable drug that we have to fortify the heart against the action of these poisonous and depressing toxins, is strychnia, and I think that the mistake most made, is in giving this drug too late to get the lasting stimulating, and enervating cardiac effect.

As said before, if the pulse is a good full one, not too fast and not irregular, then but little medication is needed, but per contra if very soft and lacking in volume and quite rapid and at times irregular, I think strychnine is the drug par excellence, beginning as soon as possible with a moderate dose three times a day and increasing as the disease progresses. Beginning early, whether the organ needs immediate stimulation or not, we get a condition of muscular tone which enables it to better withstand the nervous excitability produced by the poisonous toxins on the cardiac nerve centres.

A very valuable adjunct to the use of strychnine toward the latter part of the disease, when the first sound of the heart becomes not so distinct, is alcohol in the form of a good whiskey or brandy. I think it a mistake to give it early in the course of the disease, unless the patient is an habitual drinker, and if so it should be given in moderate quantities from the beginning, and increased as it becomes necessary, though in such cases we partially lose the beneficial results to be gained when patient gets in that low depressed state near crisis and needs active stimulation. At such times I know of no cardiac stimulant which is equal to alcohol judiciously administered. Of course, there are more powerful agents, such as nitro-glycerine and nitrite of amyl which may be used in emergencies, and be of great benefit, but for ordinary use, unless there be a very great depression of the vital forces, I think alcohol better.

After the crisis and patient's temperature becomes normal or nearly so, the tincture of nux vomica will act both as a bitter tonic, stimulating the organs of digestion, and as an excellent cardiac tonic.

In conclusion, let me say a word about the injection of the normal salt solution in the treatment of the disease, though I have never had occasion to use it. I have seen some very logical articles in the medical journals upon the subject, and I believe it to be good treatment in that class of cases in which we ordinarily look for a fatal termination. It is a powerful cardiac stimulant, diluting the toxins in the blood, and increasing the action of the excretory organs.

I shall certainly try it at the first opportunity.

DISCUSSION.

Dr. R. H. Lewis.—I was very much interested in the experience of Dr. Henry W. Lewis, of Northampton, in the treatment of 20 or 30 cases with creosotal. I shall be glad to hear if the Society has had any further experience with creosotal.

Dr. Henry Lewis.—It is with considerable reluctance that I tackle the subject of the treatment of pneumonia. It is large in view of the fact that it has been almost as variable as the sands of the sea. It has been called the battle-ground of therapeutics. In 1899 I read the paper of Smith on Pneumonia. "The treatment of pneumonia as based on its etiology." It was published in the Medical Times. He endeavored to take the disease out of the category of inflammation. Among other things this paper treated of the antiseptic treatment of pneumonia and went back, taking in view all of the old treatment, including the salicylates, bleeding and all. He recommended creosotal and also gave some statistics and mentioned how and where pneumonia had been treated with creosotal. Creosotal is the carbonate of creosote. It was just before the time I expected to see pneumonia and I got the druggist to order a pound. It was backed up in a small way by William H. Thompson, a man for whose clinical experience I have great respect. I would report my results but unfortunately a large majority of my patients were young people. Lobar pneumonia is rarely fatal in the young. The result of any treatment should be backed by an enormous number of cases; it should also be endorsed by a number of observers. I got very brilliant results in children. I commenced to give it in emulsions and flavored with some of the essential oils and found it was very well retained, and afterwards being a country practitioner and having to carry my drugs, I got to giving it in hot milk and sugar, which I think is the best way. I got good results in the first few cases. I saw nothing brilliant until I began to push the drug until it decolorized the urine, and when that got dark I commenced to smell it in the breath, smell it in the room a little bit, and the nurses would say, what is this smelling? It did not relax anything of other treatment. I gave strychnine nitrate, nitro-glycerine, alcohol, mercury in just such doses as to keep the secretions acting. I had in all 34 cases of pneumonia the majority of which were in children. About 12 cases were negroes. Of the 34 cases 4 died. Two I saw when they were moribund. The oldest case I had was 65 years old. There was resolution under full dose of creosote. In the 34 cases there were only 5 distinct crises and they were patients that were seen late. My conclusions about the use of the drug are briefly: If the patient is seen immediately after the chill and the drug is pushed freely you have an antitoxine. It should be given on the principle, in my opinion, as the antitoxine of diphtheria. Of course, a man's judgment will determine how much a patient can stand. My experience is that he can give it certainly in one drachm doses, and repeat after 4 to 6 hours without any disturbance. I have had better success than I ever had before with the same number of cases of pneumonia, yet I am loath to say too much upon any drug because the mortality varies from year to year so much that any conclusion upon a small number of cases, a number that does not mount above the hundreds, must be incomplete. I have had a good deal of experience with the disease. In my early practice where I am living I treated 14 cases of pneumonia on a plantation. The treatment was exceedingly simple, consisting in nothing but whiskey, quinine, dovers powder, and calomel to keep the secretions acting. I was priding myself on my success. A little while afterwards, in my own neighborhood, in the town in which I lived I had the misfortune to see within 2 weeks 4 of my best friends dead. Everything was tried. Consultation was sought, but they died. My attention was called to creosotal by the article of Smith which can be had by those who wish to see it, and it is such an article that I do not think any thinking man can pass it unnoticed. Creosotal does no harm. Support the heart with strychnine, and keep the patient toned up and I do not think one drachm will hurt an adult or 20 drops a child.

Dr. R. H. Whitehead.—My attention was attracted to creosotal by the same ar-

ticle which has been alluded to. Smith is a man who is by no means enthusiastic on the subject of drugs and my attention was at once attracted to the drug. My experience is so limited I do not feel like drawing any conclusion from a few cases, when the mortality is so variable. A man will sooner or later find cases where he is absolutely helpless. My cases of pneumonia with creosotal are 4 in number. One of these the man died 36 hours after the chill, but in the 3 others they all got well. I used creosote carbonate, 20 drops every 4 hours and all three ran exactly the same course. About the fourth day there would be a sort of pseudo crisis, temperature fall 2 or 3 degrees and stay there and the patient presented a deceptive appearance, seemed so much better than he really was, would want to laugh and joke with you, yet if you took his pulse it would be as fast as before and respiration as fast. About the 7th day as usual there would be the real crisis. My experience was very encouraging.

Dr. A. A. Kent.—I presume that every doctor here feels that he knows how to treat pneumonia, and I feel somewhat presumptious in offering my experience to this body of physicians. However, I do feel that pneumonia is one of the diseases in which treatment does modify the disease and do good. While I always approach a case of pneumonia with a feeling that it is a serious sickness, if there is one disease above another that I love to treat it is pneumonia, because I feel that I can do some good to my patient, and feeling that way about it I am induced to speak of the treatment I have pursued during the past two seasons. Winter before last we had an epidemic of pneumonia in my county. I saw some 40 cases. I probably made a mistake of diagnosis in a few of these. I only had one fatal case and that I hardly count in my own practice because I was called into consultation, to see an old gentleman who was 70 years of age, who died in less than 24 hours from the time I saw him. I do not have any new remedies to suggest. I have relied first for the relief of pain upon morphine or opium. I would feel that I had not done my duty to my patient if I did not relieve his severe pain. Morphine is, perhaps, the best remedy to relieve pain. One case I recall in which I bled the man. He was suffering intensely with pain and had taken 6 one-quarter grain tablets of morphine before I reached him and was not relieved of his pain. I felt that he had taken enough, and proceeded to bleed him something more than a pint, and before I was through he said that was the first thing that had given him any relief. He made a good recovery, though I continued the routine treatment. I use tincture of aconite in the majority of my cases. I do not use it in every stage, but in the early stage I believe it does good. It will slow the pulse-rate and relax arterial tension. You will gain a great deal in relieving the heart in that way. I use sweet spirits of nitre. I believe it acts on the skin and kidneys and conduces to the comfort of my patients. I have used Parke Davis' euthymol, 20 drops every 3 hours. Whether this has any combatative action in destroying the pneumoccoci I do not know, but I do know my patients take it well. The stomach is kept in a better condition, and is in that way benefitted.

In stimulants I like alcohol, but I believe strychnine nitrate is better. In some cases I like digitalis. I would not give digitalis early in the case. In one instance, when I was a young man and had less experience I gave my patient tincture of digitalis early in his case and the more digitalis the harder the heart pumped against his sore lung and the more acutely he suffered. I faced about and gave the tincture of aconite and fluid extract of ipecac until I had relaxed him, when he was relieved. I had been using morphine all the time, but it did not seem to relieve him. While all these remedies are old-timed, I think they are good and shall continue to use them. During this past winter I have not had so many cases. I have had about 25 cases and lost only one.

Dr. N. B. Herring.—For about 35 years I had a hobby horse in my pneumonia and I rode him a long time very successfully. Dr. Kent is riding the same one to-day I think. I used to think I could cure pneumonia. I tried all the old-fashioned remedies. Dr. Kent is certainly right about one drug. You will find a man with high temperature and dry skin. He must get relief. You can relieve him by relaxing the bloodvessels, but that sometimes is too costly. I think an ounce of blood taken from the seat of the pain is equal to a pint from the arm. But the remedy for pain we all know is opium. There is a vast difference in pneumonia in the kind of dose you give. I used to give one-quarter grain dose but I saw one-quarter grain kill a grown woman one day. It was administered by a physician and the woman was his wife. Large doses of opium depress the heart, as you all know, and small does stimulate it. I give one-quarter grain every three hours day and night. As Dr Kent says, tincture of aconite is good. I think it saved a boy's life for me year before last. Taking all in all, homeopathic doses of morphine frequently repeated and let pneumonia take of itself.

Dr. Sikes.—I feel a good deal like Dr. Kent did just now. It strikes me forcibly that every man present feels that he knows how to treat a case of pneumonia and yet I remember in the last few weeks an effort to get a paper up on that subject. In a disease with a death-rate of 17 per cent. treated by a medical profession who understand the treament thoroughly there must be some mistake in the treatment. I think Dr. Kent has the key note of the treatment of pneumonia. I very little doubt if I were to give you my experience some of you gentlemen would say I am egotistic on that line, but I am satisfied that in the whole range of my acquaintance I know nothing so good for the treatment of pneumonia as quinine, opium and ipecac. Give me these three drugs and anything less than 60 years behind the patient, and I really feel that I am running no risk in taking that case of pneumonia. I hope you gentlemen will pardon it, for I do not mean that for egotism, for I say in a practice of 18 years I have lost only 2 cases of pneumonia under 60 years of age. I am hardly willing to admit I have not had some serious cases of pneumonia, though I may have made some mistakes in diagnosis in that time. When I am called to a patient with pneumonia if I get there within 48 hours I find the patient with pain in the side, trouble in breathing, dry skin, high fever, dry tongue. If the pain is very acute I give morphine; if not very acute I put up a combination of quinine, opium and ipecac in the proportion of grain 1 of quinine, grain one-quarter of opium, and grain one-quarter of ipecac powdered, made into a pill and in 48 hours most every time, and 72 at the highest, you will find that you have softened down the respiration. The congested lung is replaced by the crepitant rales, the skin moistens, of course profuse perspiration takes place and when you have done that you have attained the comfort of your patient, and as Dr. Kent suggests, put him on sweet spirits of nitre, paregoric and bicarbonate of potassium, and so far I have found that treatment to act most admirably. In low cases we have to resort to stimulants. I have used digitalis, strychnine nitrate, ammonium carbonate. I believe they are all worthy of our consideration. I am inclined to think that possibly the most reliable we have is nitrate of strychnine. In ordinary sthenic cases of pneumonia we do not have to resort to those stimulants at all. In old drunkards and aged persons you always have some cardiac stimulant. I have also got good results from the use of alcohol. That is about the only disease where I think I got any good from the use of alcohol. For the past century the death-rate has not altered materially at all, it is about the same to-day as 100 years ago and if in our rapid progress of discovery we have not been able to lessen the death roll of 100 years ago the conclusion would be our new-fangled ideas are not inferior to the old hobby horses.

Dr. J. F. Miller.—I have been somewhat sidetracked for the last 12 or 14 years, but the discussion has been very interesting to me. I am reminded by Dr. Sikes' statistics of a remark of one of our distinguished baristers used on a certain occasion in addressing a body of medical students. He was complimenting them upon the advance of science in medicine, how much more scientific the young men of to-day were than the older doctors, and he wound up by saying, but I doubt very much, young men, whether you will cure more patients than the old doctors, who believed in hell and blisters. I have been practicing long enough to witness the rise and fall of theories. I remember very well when you were called into consultation 40 years ago to see a case of pneumonia you would naturally suppose your brother had salivated, bled and blistered him. I believe in the virtue of medicine and the scientific administration of it. I believe we can alleviate suffering and can modify the course of disease in a great many cases. I used to believe I cured pneumonia. I have denied the statement of modern times that pneumonia is a self-limited disease, because I have gone to patients with high fever, bounding pulse, and taken from him about a quart of blood and his pain left him, skin became relaxed and that man never did get to his former condition. And I used to have a hobby. The prescription I used was quinine, digitalis and dovers powder and I thought it would cure 75 to 80 per cent of people with pneumonia. The main thing in the treatment of disease is to do no harm. Dr. Dixon said in a lecture 35 or 40 years ago the first thing to do is do no harm. I once had a friend who had a pint cup of tea made of ipecac with a little antimony and he said he cured his patients with that. After all, I believe the main thing is in keeping up the heart action. I believe in strychnine and quinine. I heard a medical friend of mine say once he never forgave himself if he let a patient die of pneumonia with a sound skin. I would like to have an expression of opinion whether you can cure pneumonia. My opinion of pneumonia and typhoid fever as to whether they get well or not depends mainly upon the type of fever or pneumonia they have.

Dr. H. T. Bass.—I was very much in-

structed with the discussion on Dr. Rodman's paper and I think if I had been with Dr. Rodman when he bled his patient I should have agreed with him. In an investigation of the subject of pneumonia some time ago I found I had been at sea a good many years. I used to think I cured pneumonia when I first commenced to practice medicine with calomel, quinine and jalap. Some time a year or two ago we had somewhat of an epidemic in my practice of pneumonia and a great many died and this year we have had somewhat of an epidemic and the mortality has been large. In investigating the subject of the mortality I find that the U. S. Census for 1890 gave the mortality rate greater than any disease we have been keeping statistics of except consumption. Dr. Webster, in the Practitioner for 1900, says in the treatment by blisters, calomel, ipecac, antimony, potassium and large doses of quinine, blood letting that the statistics had not been changed. In private practice we get better results. The best statistics give 17 to 40 per cent in hospitals. I find there is no disease about which the profession has been so much at sea as pneumonia. I have tried everything and to-day the treatment that seems to hold out better prospects than anything else is the water treatment. Cold water locally and internally, cold baths, ice bags. It is almost exclusively recommended by Moize and Hare. Moize is in the habit of treating his patients with ice packs. He makes his patients comfortable and gives hygenic remedies and stimulants in the shape of foods. We have gotten such good results in diseases such as typhoid fever in the cold bath treatment that we are resorting to it in all the diseases that have high temperatures. As the doctor suggested in his paper, salt water treatment is now in vogue for pneumonia, not only in pneumonia but in all cases of prostration. They are now giving it hypodermically, pint or quart injections. It eliminates the toxine poison if there be one in pneumonia. stimulates the heart, the skin and the kidneys. Osler recommends it very highly in all fevers, typhoid, diphtheria, measles, scarlet fever, and their complications.

Dr. R. J. Gill.—During the war we had a patient regarded as moribund, he was left in my charge with directions for burying. He had been unconscious for 24 hours. I placed a blister two inches square on him and gave him enemas of French brandy and milk and in 6 hours I had the man taking brandy by the mouth. I find in pneumonia each epidemic requires treatment suited to the epidemic. I have great confidence in veratrum viride in every case that requires it. On the whole in sthenic cases of pneumonia nothing answers so well as aconite and opium. In some cases where we have malarial complications I keep the pain down with opium and control the circulation and the patient gets well.

Dr. B. F. Halsey.—I will say in regard to alcohol in pneumonia that I am in the habit of using it internally, externally and eternally, and consider it one of the best stimulants.

The Conservative Treatment of Diseases of the Uterus.*

By John Thames, M. D., Greensboro, N. C.

It would be very difficult to define the difference between the conservative and radical treatment of diseases of the uterus; nnder some circumstances this organ may be so peculiarly diseased, until the most conservative treatment would be the most rational.

Within the last decade the cry for conservatism has been so great throughout this country until considerable harm has been done to the uterus and other pelvic organs, by incomplete conservative operations that had to be completed later on by the most rational.

The general practitioner is called upon to treat many cases, even of an aggravated form, that can be treated on "general principals", where to palliate and assist nature is the most conservative course to persue. On the other hand, a simple catarrhal inflammation may prove fatal if treated in the same way.

A through knowledge of the etiology of diseases will materially aid the physician in determining the plan of treatment that would be the most conservative: For example, two patients come to your office, the symptoms of each alike, both give a history of having had metorrhagia and menorrhagia; and other symptoms that follow subinvolution from any cause. Upon examination, in the one, we find an enlarged and inflamed uterus, probaly some fungus growth, a dilated os, without any lacerations: a condition brought about from frequent pregnancies and an over amount of household cares and worry. The other has a larcerated cervix with ulcerations—will bleed on touch, a condition caused from instrumental delivery or improper manage-

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ment during labor ;or may be from criminal abuse. The first can be successfully treated by a change of location, complete rest and suitable drugs. This plan under ordinary circumstances, would be the most conservative; while in the other, to palliate would only aggravate.

Accumulated experiences has shown that any laceration of the cervix is one of the most common pre-disposing causes for malignant degeneration, and cases of this kind, when left to nature, even under the most favorable conditions, will generally terminate in cancer of the uterus and its appendages. When this is once established, death is inevitable. All cases of this nature, and from said cause, in my opinion, should be submitted to the most rational treatment, early, before the diseases envolves the surrounding tissues. To do a radical operation to prolong life would be the most conservative.

I am proud to be able to state, that at present, by the modern methods of operating, supra-vaginal and panhysterectomy, has so far reduced the mortality following removal of fibroid tumors, until the practitioner, if he is endowed with an average amount of skill, under favorable circumstances and clean environment, can with safety relieve his patient from the burden of her tumor—at the same time she rejoices in the posession of her essential female organs.

The splendid results obtained from surgical operations within the abdominal cavity by experienced and skilled operators, the former fears and dread has almost entirely disappeared from the minds of the layety, and the surgeon is confronted by the question, not as to whether they will get well, but a more serious question, possibly, whether or not thy will be "unsexed",as they call it, by the operation.

Of course, what a patient wants is health and will undergo almost anything advised by her physician and consulting surgeon to obtain it. This has been deeply impressed upon me in two instances recently. The women have been long sufferers and begged of me that if I thought it would restore health and relieve them of their pain, to remove all. They were willing to sacrifice their organs of sex for the sake of health. Yet the thought of a complete removal of both ovaries, tubes and uterus carried with it an indescribable feeling of abhorance that they would be so very different from other women.

It is gratifying to me to know that the accumulating experience and improvements in abdominal surgery has made it possible to save many important sexual organs of the human, that were formerly sacrificed, even by such noted surgeons as Lawson Tate, Hegar and Batty, to arrest the growth and hemorrhage of fibroid tumors of the uterus, and for the relief of inflamed and suppurating diseases of the uterine appendages.

In this special field sacrificial surgery is fast giving way to more conservative methods of saving all the organs possible. In abdominal surgery, as in any other, it requires more skill to save a mutilated or diseased member than it does to cut it off or cut it out.

Drs. Kelly, Dudley, Mann and others who are adopting the plan of saving, show by their records, when the uterus tubes or ovaries were affected by tumor, the diseased part was dissected out, and the healthy portion stitched together with full recovery, thereby preventing the woman from being entirely relieved of all her sexual organs and causing a premature menopause with all its trouble.

At present the cruel, inhumane craniotomy is being displaced by the more scientific, conservative, improved caesarian section. The improved, conservative and successful caesarian section has not only replaced the radical inhumane sacrificial craniotomy, but has lessened to a great extent the causes of lacerated cervix, that are usually followed with grave complications and calling for a secondary operation.

After all, the real conservative treatment of diseases of the reproductive organs of the female, is the preventive treatment. The young girls should be trained in hygiene, and taught that the highest duty they owe to humanity is a proper care and developement of their physical, as well as their mental bodies, through a strict obedience to the laws of nature, thereby best fitting them for the highest office of wifehood and motherhood.

The divine purpose of woman has ever been recognized, but it is evident from the amount of invalidism, nervous exhaustion and number of operatiens performed among the women of to-day, that she has neglected the most precious gifts which natue has endowed her; she has failed to appreciate those qualities and powers which are hers, and would make her most valuable to humanity.

St Mary's Hospital has just received £25,000 form the executors of the late S.R. Zunz, Esq., on condition that the authorities raise within six months the sum of £50,000 to enable them to complete forthwith the Clarence Memorial Wing.

The Importance of Early Diagnosis and Treatment of Tuberculosis.†

By J. P. Munroe, M. D., Davidson, N. C.

It is realized that in presenting a few thoughts on this subject a well beaten path must be trodden, and statements made that to many will appear common-place and too self-evident to be reiterated.

To the specialist, any statement bearing on the importance of early diagnosis and treatment of tuberculosis is axiomatic and he is keenly alive to the value of early diagnosis and the possibilities from prompt treatment.

Unfortunately, however, among general practitioners there is a sort of apathy born of despair that looks with utter hopelessness upon everything labeled tuberculosis; the result being that the physician closes his eyes as long as possible until finally the dreaded truth is forced upon him, and he either resorts to palliative measures or shifts the responsibility by advising a change of climate and probably a visit to a specialist.

Being one of this general class of practitioners and knowing from experience as well as from observation the seriousness of delays that often occur, I desire to call attention, briefly, to some fundamental truths bearing upon this subject in the hope of arousing amore active interest in behalf of this large number of unfortunate patients.

When we consult the mortuary tables and note the large proportion of deaths resulting from this disease; or when we look abroad over our own State and see its wide spread ravages; or if we confine our vision to the narrow limits of each individual physician's practice, and observe the high ratio which it bears to other fatal maladies, certainly no discussion should seem commonplace, and no consideration unworthy that looks toward the better care and treatment of this class of patients.

It may be observed, and the most astute specialist will admit, that an early diagnosis is not always easy.

It is not uncommon for galloping consumption to be diagnosed as pneumonia or typhoid fever, and after several weeks the case passes on to one of chronic phthisis or to an early death. In these cases the early diagnosis is probably of less importance to the patient than to his friends and nurses and, I might add, to the reputation of the physician.

Without enumerating any large number I may mention a very striking case of this kind that came under my observation recently.

In our out-door clinics, I examined, with some students, a colored man about 35 years of age who had been sick three or four weeks.

The history as given by his friends was very meagre and unsatisfactory. One statement being that his sickness was supposed to originate from a blow upon the head.

Another view which had more adherents among those who had been with him was that he had swallowed a large quantity of cotton seed meal in the oil mill where he had been at work, as was evidenced by the character of matter that had been vomited. I found him comatose, with a temperature of 105; abdomen tympanitic and other indications of the last stages of typhoid fever. So far as could be ascertained his previous health had been perfect, and there was no history of a cough or lung involvement in the present sickness, and I may candidly confess that I did not examine his lungs. I told my class that while the diagnosis was not clear the indications pointed to septic peritonitis due to typhoid perforation, and as the end was not far off we might have an opportunity of verifying the diagnosis later. The opportunity came and I opened the abdomen, confidently expecting to demonstrate a typhoid perforation. To my surprise, however, I found only a peritonitis limited to the subdiaphragmatic region, no perforation and no ulceration. The existence of this small amount of peritonitis was a very small grain of comfort to one who expected to demonstrate so much. I immediately began to think about the theory of a blow upon the head, but, as a matter of routine, next opened the thoracic cavity, and to my surprise found both lungs masses of tuberculous tissue in a complete state of disintegration.

Chronic tuberculosis often exists in old people without any very evident symptoms and these cases too are sometimes detected only after death.

A striking case of this kind came under my notice not a great while since.

A man who was regarded as robust and healthy, and who was following his daily avocation as a farm laborer, died suddenly without a day's sickness. Diagnosis—heart disease. On taking out the heart and examining it I found it enlarged, degenerated in spots, and a slight atheromatous condition of aorta. No valvular lesion, but there were in the heart and large veins antemortem clots, which with the dilatation and hypertrophy indicated serious obstruction somewhere, It was not far to seek, for

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both lungs were found in an advanced stage of fibroid tuberculosis.

Another class of cases in which the symptoms are obscure and diagnosis often difficult, is in children, and certainly no one could magnify the importance of giving them prompt attention. Such diagnostic features as the presence of a cough, with expectoration, and tubercle bacilli, with night sweats and the ordinary physical signs may be entirely wanting. The only symptoms of disorder may be irritability, loss of weight, and apparent paroxysms of malarial fever. So difficult are these cases that an eminent authority advises that they "should be observed for several weeks and sometimes months before giving a positive opinion relative to the diagnosis or prognosis."

Another safe rule might be added, that in all such suspicious cases, the most careful attention should be given to the general condition and the surroundings of the patient, and hygiene measures, at lesst, ordered with a view to the most serious diagnosis.

Making all proper allowance for cases in which it is difficult or impossible to make a diagnosis as early as is desirable, there still remains a large number of cases in which the diagnosis ought to be made and could be made but is not until irreparable damage is done.

The fault often lies with the patient or his family rather than the physician. A "protracted cold," troublesome though it may be, is thought to be too slight a matter to justify a doctor's bill, so laxative quinine tablets, anti-cold, and other simple remedies, are used. Or probably a cold in the chest and its attendant cough becomes so annoying that the opinion of the druggist is invoked and he very generally donates a sample bottle of Dr. ——'s new discovery for consumption. The name is attractive even if suggestive, and the immediate effect is so soothing that the duggist has no difficulty in selling a half dozen fifty cent bottles. Later, upon the advice doubtless of some friend, he decides that he will have to take cod liver oil. By this time he is getting somewhat uneasy, but only after he has tried several varieties of emulsions and tasteless preparations does he do what he should have done in the beginning, consult his physician, now too late to receive any benefit.

Another kind of patient easier to reach, but more difficult to hold, is one who consults the doctor on the least sign of disorder but the barest suggestion of tuberculosis so frightens him that his first and chief impelling thought is to run somewhere, anywhere, to get rid of the disease and the doctor who even suggests it. These patients, while they often decline our treatment, always excite our deepest sympathy. If a female she is apt to attribute all her troubles to a disordered menstrual function and refuses to accept the view that this is the result rather than the cause of the trouble.

If a male he is apt to attribute all his troubles to overwork and broken down nervous system. I saw an interesting case of this kind recently which excited my deepest sympathy. A very intelligent gentleman consulted me for a chill which he had had and which he supposed was malarial. I questioned him particularly as to his general condition and found no satisfactory explanation of his chill. He had no cough, no pain in the side, but finally he did somewhat reluctantly admit that he had had a hemorrhage seven years previously. Making a note of this I prescribed something for temporary relief and advised him to see me again. A few days afterwards he had another chill and this time I made rather a more thorough examination and found in one lung physical signs of some kind of disorder. I told him the status of affairs and stated as there was no cough and no sputum for a microscopical examination I would like to use thi Tuberculin test by injection so as to ascertain if possible the exact nature of his trouble, telling him plainly that I feared the presence of Tuberculosis. Instead of agreeing readily to my suggestion he immediately said he thought he would go home, so overwhelmed was he at the thought of Tuberculosis that he was unwilling to be enlightened or even to allow his physician to know definitely his condition. I explained to him that in his present condition, for his general health was excellent, even if Tuberculosis was present the probabilites were that it could be cured if treated promptly and intelligently. While not objecting to his going home I urged him if he did so to place himself under the care of a competent physician and secure prompt and regular treatment. He finally agreed that my advise was wise and left my office promising ao return next morning. Instead of this, however, the next day he sent me word that he was sure he had Tubreculosis and did not want to be any more certain of it but thought probably his chief trouble was a nervous break-down due to a sedentary life and over-work. Consequently he would go home and would like for me to send him a prescription for Tuberculosis that he could use continously. I have not heard fron this patient since but I greatly

fear that he will allow his case to go untreated until he is beyond relief.

It is sometimes difficult to determine whether it is honest error and disbelief in the opinion of the attending physician or a wholesome dread of this terrible disease that causes patients to run from one place and one physician to another, refusing to place themselves regularly under treatment. Certainly it is our duty as physicians to deal with them kindly, yet firmly, and endeavor as far as possible to impress upon them and their friends the danger of such a vacillating course.

In cases where the fault may properly be placed upon the physician the influences bearing upon him are somewhat of the same nature and in a certain sense it is the sympathy and kindness carried too far. It is often the case that the physician examines and treats indefinitely a Bronchitis which he feels uneasy about but dreads to probe thoroughly. He tells the patient that he has Bronchitis, which is true, he hopes there is nothing more, and matters go on from bad to worse, both patient and physician blinded to the true nature of the case but the physician in these instances is responsible for the delay. Probably every one of us has seen cases of advanced Tuberculosis who have been treated for months or even years and told that they have a stubborn case of Bronchitis. Besides the natural dread and the proper sympathy which the physician has for the feelings of the patient, his apparent negligence and delay in making a positive diagnosis is sometimes due to the fact that he feels like it really makes no difference about making a positive diagnosis, because if it is Tuberculosis that means certain and inevitable decline of health and death. He knows that there is no specific for this disease and consequently feels that it is possibly a kindness to the patient to let him enjoy life while he may. This assumptional, however, is entirely wrong when viewed in the light of modern treatment.

No one will claim that there is any hope for advanced cases of Tuberculosis but that there are a large number of cases cured or arrested when treated early no longer admits of doubt. Without giving lengthy statistics in support of this assertion I need only refer to the tabular statement of the various sanitaria which make a speciality of this disease or the able specialists who are members of this Society. My own experience, which is rather a limited one, bears me out in the assertion that treatment is not only valuable but often effective in arresting the disease. Realizing then the importance of an early diagnosis and treatment the question at once arises how can a diagnosis be made in these early stages and what measures should be adopted when made. It is not the purpose of this paper to enter in a full discussion of either one of these questions but importance of the subject justifies a brief reference to one or two points in each.

Where there is expectoration every one realizes the importance of the microscope for diagnostic purposes and if the Bacillus Tuberculosis is found of course there can be no further question as to the nature of the disease. Negative results by this method, however, should never in any suspicious case be accepted as conclusive. Probably the other measures to be most relied upon is the injection of Tuberculin. I have found this invariably in my practice to give a reaction in case of Tuberculosis. Statistics given by authorities state that it will do so in a large percentage of cases. Another method, that is valuable, however, only in the hands of an expert is the use of the X Ray. I deem it unnecessary to go into details as to the use of these various methods but desire simply to call attention to their value and importance.

Of the clinical features that should arouse our suspicion I attach more importance to the temperature than any other one symptom. An afternoon rise, either with or without a cough, progressive debility and loss of weight should always arrest our attention and suggest the necessity for accurate methods of diagnosis. Add to these the rapid heart and increased respiration, the hollow chest and family history, and the picture is often completed whether physical signs are evident or not.

As to the treatment, the important thing to remember is that individualization of the patient is the key-note of success. The time has passed, if it ever existed, when a man should undertake to write a prescription for Tuberculosis applicable to cases in general. Herein lies the value of constant and careful supervision of cases. No one is more sensible of this than the conscientious specialist, even although he may have some one medicine or line of treatment upon which he places his chief reliance. This individualization of patients and treating each one upon its own merits applies not simply to medicinal measures but to diet, exercise, bathing and climate as well. We too often hear the family physician simply give the advice "go to the mountains." Instead of this if he himself has not given the subject sufficient attention to feel justified in giving specific advice and treatment he should say perhaps a change of climate will be beneficial, but

even in this matter you must be guided by the advice of some who has made this a study, and wherever you go do not trust simply to the climate alone but place yourself under the care of an intelligent physician. It is said, however, that 95 per cent. of the cases of Tuberculosis must be treated at home on account of the financial inability of the patient to go elsewhere. For this large class of suffering humanity I appeal to the family physician to exercise more patience, more thoroughness, and more care in the investigation and treatment of these cases.

DISCUSSION.

Dr. H. B. Weaver.—There are two reasons why the early recognition of this disease is of importance.

1. It is the most prevalent of all diseases and devastates the world more than all other contagious diseases together. I believe J. P. Whitaker says two-thirds of mankind is affected with tuberculosis, and that one-third die of the disease, hence 59 per cent. make spontaneous recoveries.

2. The next reason is that it is the most curable disease in its incipience. It was Trudo I believe last week who said in a review work, statistics showed 75 per cent. of cases were curable in the incipient stages and after the advanced stages were reached the mortality was very high. There are a few unmistakable symptoms by which an early diagnosis can be made in my experience, in what some call the pretubercle stage, before there is any dullness or depression, any rales, not much cough, or any general manifest symptoms which we recognize as the second stage of the disease. The first symptom that calls our attention is the diathesis of the patient—shallow chest, want of extension, long arms, long neck, peculiarity of the teeth, or something of that kind. Probably inheritance is shown somewhat in the fact—you may have loss of flesh, slight cough. Then comes the rise of temperature, .5 to 1 degree, with the accompanying anemic condition and moderate loss of flesh. There is prolonged expiration, a harsh inspiration. There is a cogwheel action somewhere in one portion of the lungs. As the disease advances there will be dullness on percussion, crepitant rales. If you are not then satisfied use the tuberculin test, one c.c of tuberculin will give you an unmistakable sign.

Dr. Payne.—I am very much interested in the paper because I believe phthisis to be almost incurable unless diagnosed in its incipient stage. When a patient is so afflicted with tuberculosis that you have the signs just given increased fremitus and cogwheel murmurs I feel that the best chance is gone. We can not afford to be deluded with the idea that 50 per cent. of those who have tuberculosis of the lungs can be cured, therefore we are driven to believe that the most that can be done in the care of tuberculosis is in its prevention. The anemic-pretubercular stage is the one in which most can be accomplished. Take a patient with enlarged and suppurating tubercular glands in the neck, and if we do not deal with the gland promptly we will almost surely get phthisis, and the same to a lesser extent is true with tuberculosis of the bone. In these preventative measures it seem to me that we have the best hope for the safety of our patients. Some can be cured after the incipient stage, because autopsies prove this, but these are rather curiosities than the thing to be expected.

Dr. High.—I think this paper merits full discussion. In an experience extending over several years in which I have given more attention to it than anything else, I am justified in confirming the opinion of those gentlemen who have spoken with regard to the results which follow an early diagnosis and proper treatment. There are some symptoms that lead one to suspect tuberculosis—one at least that has not been mentioned, and that is indigestion. The loss of appetite is quite common, but indigestion is a symptom which antedates the loss of appetite. I have observed in quite a large number of cases that the first symptom of impaired health has been indigestion, and in women this impaired indigestion has been more noticable at the menstrual period, and I have on record a number of cases that bear this out. With regard to the class of cases that should lead us to suspect pulmonary involvement, I would say in a general way those cases that present to us a group of symptoms, suppose that they are run down. Those persons are the ones that we feel we must give a tonic, without any well defined reason for doing so. We give them rest.

A patient that at first suggests the propriety of a tonic had best be examined before you prescribe anything, and a patient whose digestion is not improved by a prescription or two, had better have their lungs looked to for the trouble. It is a disease in which you get circumscribed areas of disturbed breathing signs; prolonged expiration over the area which was suffering or in which the tubercle has already erupted, but there would not be prolonged expiration on the corresponding point on the other side. The slightest change may be detected by comparing the two sides. There are some slight variations in the normal lungs which

it will be necessary to take into account. You may make yourself sure by an injection of tuberculin. I have yet to see the first ill results from it. I have usually given not more than .7 c.c of purified tuberculin, and in every case of suspected tuberculosis I have had a reaction which lasted in no case more than 36 hours. It is satisfying, mild and sure. There may have been unpleasant results in the experience of other men, but they probably came from excessive doses. I know that some practitioners give more than .7 c.c. I have never given as an initial dose more than .2 c.c, and increase the dose by adding .2 c.c until I reach .7 c.c if necessary. I believe if you will get some tuberculin and try these cases you will be surprised at the result.

Dr. J. Allison Hodges.—I think this is the most practical question that has come before this body during this session. I know of nothing that has given me more concern as a practitioner of medicine than my inability to diagnose tuberculosis in its incipiency. I did think it was my inefficiency that made it so difficult for me. In later days I have come to the conclusion that it is one of the finest works of diagnosis to be correct and positive in its primary stage. The outward signs are the signboard by which you arrive at some conclusions. I have noticed time and time again in life insurance work that after examining the chest with every possible means of diagnosis I had in hand, I was uncertain and the only way I could arrive at a conclusion was to put the signs evidenced in that individual in correlation with the symptoms. I do not believe the average man with one examination can possibly arrive at a positive diagnosis in its early stage, and if I had to pick out any one symptom I would say that the thermometer was the standard test and you could not possibly arrive at a conclusion without repeated tests. I believe outside all these signs tuberculin is one of the best aids though not positive, in arriving at a diagnosis. I am not so optimistic as some of these gentlemen, I do not take such a roseate view as some of them. I am willing to give their opinion great weight because some of these gentlemen have had great experience, but I shall agree with Dr. Payne and say that in my practice I have never had anything like 50 per cent. arrested—not 25 per cent., and I have had some patients who have had all the means and appliances and have crossed this continent time and time again and been under the treatment of dozens of the most eminent men, and came back to my hands' I believe if the State Board of Health wishes to do great good this is the field they should labor in. The sound of a case of smallpox would stir us all, yet what is smallpox compared with tuberculosis! I believe the State Board of Health can educate the people of the cities to the fact that they can prevent this disease. There is a line of treatment that I believe we should put into operation when we discover this disease. This is the open air treatment. No doubt some of you have visited that sanitarium in the Black Hills of Germany and seen the cures from the outdoor life and the high feeding, and the exposure of those individuals to the weather, calm or storm, and you must have been impressed with the good results. I have sent patients to almost every sanitarium in this country and I have found no better results than was obtained where those patients lived in high, dry atmospheres, might obtain at home. I believe that the future sanitaria for consumptives will be great forests and individual homes will be built, and the treatment will be carried out along that line, but when patients are not able to take advantage of these institutions, we should impress upon them the advantage of the outdoor life treatment, living absolutely summer and winter, day and night, out of doors, because I believe every one of us can carry that out in a measure. I had a patient two or three days ago who told me he sat last winter hour after hour on a hotel veranda in the Adirondacks with his cover wrapped about him, the snow falling around him, and that man was certainly improved, if not cured.

Dr. J. C. Rodman.—It may be those gentlemen who see a great many cases of tuberculosis every year can make an early diagnosis but to the general practitioner that is very hard to do. Sometimes I have mistaken my diagnosis.

Dr. H. B. Weaver.—Dr Hodges said he was surprised no one had brought out the open-air treatment, but on yesterday I did say that was the most important element in the treatment of tuberculosis, I insist on my patients living 12 to 18 out of the 24 hours out of doors. Trudo attributes his great success to this line of treatment and he does not use many drugs.

Dr. High.—I did not undertake to discuss the treatment of the disease but I wish to say to those gentlemen who may be interested I fully concur in all that has been said in regard to the open-air treatment. A rule I adopted two years ago was that the patients should sleep with one window open all the time, eternally no matter what the weather, and during the day the patient is kept out of doors and the only possible hour the patients are allowed in a closed

room is at meal time in a hotel. When the weather is warm during the spring and summer and early fall some of them have covered places where they can feel secure and sleep on cot out of doors and I have fonud that the results as reported by other physicians has been born out by my experience. The only patient I have had in two years who refused to keep the window up I promptly sent home.

Dr. Munroe.—I am gratified to see the amount of discussion that my paper has brought out and rise to thank the gentlemen who have told us so much about the diagnosis and treatment. I wish to call attention to the fact that the object of my paper was not to go into detailed methods of diagnosis or of treatment, but rather to emphasize the necessity of making a diagnosis early, and having made it to institute at once careful, rigorous, systematic treatment, individualized treatment, directed always to the special needs of the case in hand.

A Few Great Names in Medical History.*

By J. Edwin Kerr, M.D., Lilesville, N.C.

Hippocrates, termed the "Father of Medicine" was born in Cos in the first year of the 80th Olympiad i. e. 480 B. C. He was a member of the family of the Asclepiadae and was believed to be either the nineteenth or seventeenth in direct descent from Aesculapius. It is also claimed for him that he was descended from Hercules through his mother Phanerete.

He studied medicine under Heroclides, his father, and Herodicus of Selymbria. In philosophy Gorgias of Leontime and Democritus of Abdera were his masters. His early studies were prosecuted in the famous Asclepion of Cos, and probably also at Cnidas. He traveled extensively and taught and practiced his profession at Athens, Thessaly, Delos and his native island.

He died at Larissa in Thessaly, his age being variously stated as 85, 90, 104 and 109. Hippocrates was the first to cast superstition aside and to base the practcie of medicine on the principles of inductive philosphy. It is impossible to trace directly the influence exercised upon him by the great men of his time, but one cannot fail to connect his emancipation of medicine from superstition with the wide spread power exercised over Greek life and thought by the living work of Socrates, Plato, Heroditus and Thucydides.

*Read before the North Carolina Medical Society, at Durham, N. C.

It was a period of great intellectual development and it only needed a powerful mind such as his to bring to bear upon medicine the same influences which were at work in other sciences. One year in the history of medicine in our day generally marks a discovery, in one branch or another, of very great importance to the human family.

But standing on the eve of the 20th. Century and looking back 2400 years gives the student of medicine many great events to attract his attention. When we commenced the study of medicine we found it in the state of a rational science. Empiricies and Superstitions had passed away and we inherited the unique science as it is taught to-day forgetting that its completeness has been gathered by the researches of 24 centuries. It must be remembered that his training was not altogether bad although superstition entered so largely into it. He had a great master in Democritus the originator of the doctrine of atoms and there is every reason to believe that the various "Asclepia" were very carefully conducted hospitals for the sick possessing a very curious system of case-books in the form of votive tablets left by the patients on which were recorded the symptoms, treatment and result of each case. He had these records at his command and he had the opportunity of observing the system of training and treatment of injuries in the gymnasia. One of his great merit is that he was the first to dissociate medicine from priest-craft aad to direct exclusive attention to the natural history of diseases. How strongly his mind revolted against the use of charms, amulets, incantations and such devices appears from his writings and he has expressly recorded as underlying all his practice the conviction that however diseases may be regarded from the religious point of view they must all be scientifically treated as subject to natural laws. Nor was he anxious to maintain the connection between philosophy and medicine which had long existed in a confused fashion. His knowledge of anatomy, physiology and pathology was necessarily defective. The respect in which the dead body was held by the Greeks, precluding him from practicing dissection; thus we find him writing of the tissues without distinguishing between the various textures of the body, confusing arteries, veins and nerves and speaking vaguely of the muscles as flesh. But when we come to study his observations on natural history of diseases as presented in the living subject we recognize at once the presence of a great clinical physician. Hippocrates based his principles

and practice on the theory of existence of a spiritual restoring essence or principle the Vis Medicatrix naturae in the management of which the art of the physician consisted. This art could, he held, be only obtained by the application of experience not only to disease at large, but to disease in the individual. He strongly deprecated blind empiricism. Sydenham puts it his practice was "the support of enteebled and the coercion of outrageous nature."

He largely employed powerful medicines and blood-letting both ordinary and cupping. He placed great dependence on diet and regimen and here quaint as many of his directions may now sound, not only in themselves but in the reason given, there is much which is still adhered to at the present day. Although many of the treatises can not be accepted as authentic, we find in them evidence of the acuteness of observation in the manner in which the occurrence of "Critical days" in disease is enunciated. His method of reporting cases is most interesting and instructive. Laenec to whom we are indebted for Auscultation freely admits that the idea was suggested to him by the study of Hippocrates who treating of the presence of morbid fluids in the thorax gives very particular directions by means of succussion for arriving at an opinion regarding their nature. Although not accurate in the conclusion reached at the time the value of the method of diagnosis is shown by the reteution in modern medicine of the name and the practice of "Hippocratic Succussion". In surgery his writings are important and interesting, but they do not bear the same character of caution as the treatises on medicine—for instance in the essay "On Injuries of the Head", he advocates the operation "of trephining" more strongly and in wider classes of cases than would be warranted by the experience of later times. The Hippocratic collection consists of eighty-seven treatises of which a part only can be accepted as genuine. Some of them are as follows:

1. On Ancient Medicine, 2. The Prognostics, 3, The Aphorism, 4. The Epidemics, 5. On Regimen in Acute Diseases, 7. On Articulations, 8. On Fractures, 11. Injuries of the Head.

WILLIAM HARVEY.

The discoverer of the circulation of the blood was born at Folkestone on April 1st, 1578, after passing through grammer school of Canterbury on the 31st of May, 1593, having just entered his sixteenth year he became pensioner of Caiws College, Cambridge. At 19 he took his B. A. degree and soon after having chosen the profession of medicine he went to study at Padua under Fabri cius and Casserius, at the age of 24 Harvey became doctor of medicine April 1602. Returning to England in the first year of James 1st he settled in London. In the same year Harvey became a candidate of the Royal College of Physicians and was duly admitted a fellow in June 1607. He was thrice censor of the college. In 1616—the year of Shakespear's death—he began his course of lectures and first brought forward his views upon the movements of the heart and blood. In 1618 he was appointed physician extraordinary to James 1st, and on the next vacancy physician in ordinary to his successor. In estimating the character and value of the discovery, it is necessary to bear in mind the previous state of knowledge on the subject. Aristotle taught that in man and the higher animals the blood was elaborated from the food in the liver, thence carried to the heart and sent by it through the veins over the body. His successors of the Alexandrian school of medicine futher elaborated his system and taught that while the veins carried blood from the heart to the members, the arteries carried a subtle kind of air or spirit. For the practical physician only two changes had been made in this theory of the circulation between the Christian era and the 16th century.

Galen had discovered that the arteries were not as their name implies, merely air-pipes, but that they contained blood as well as vital air or spirit and it had been gradually ascertained that the nerves which arose from the brain and conveyed "animal spirits" to the body were different from the tendons or sinews which attach muscles to bone. First, then, the physicians of the time of Linacre knew that the blood is not stagnant in the body, so did Shakespear and Homer and every augur who inspected the entrails of a victim and every village barber who breathed a vein. But no one had a conception of a continuous stream returning to its source (a circulatioh in the true sense of the word) either in the system or in the lungs. The movements of the blood were in fact thought to be slow and irregular in direction as well as in speed like the circulation of air in a house or the circulation of a crowd on the streets of a city. Secondly, they taught that one kind of blood flowed from the liver to the right ventricle of the heart and thence to the lungs and general system by the veins, and that another kind flowed from the left ventricle to the lungs and general system by the arteries. Thirdly, they supposed that the septum of the heart was pervious and

allowed blood to pass directly from the right to the left side. Fourthly, they had no conception of the functions of the heart as the motor power of the movement of the blood. They doubted whether its substance was muscular, they supposed its pulsation to be due to expansion of the spirits it contained. They believed the only dynomic effect which it had on the blood to be sucking it in during its action disastole, and they supposed the chief use of its constant movements to be the due mixture of blood and spirits. Of the great anatomists of the 16th century Sylvius described the valves of the veins.

The way, then, to Harvey's great work had been paved by the discovery of the valves in the veins and by that of the lesser circulation. The former due to Sylvius and Fabricius, the latter to Servetus, but the significance of the valves was unsuspected and the fact even the pulmonary circulation was not generally admitted in its full meaning. In this treatise Harvey proves that it is the contraction not the dilatation of the heart which coincides with the pulse and that the ventricles are true muscular sacs which squeeze the blood which they contain into the aorta and pulmonary artery that the pulse is not produced by the arteries enlarging and filling, but by the arteries being filled with blood and so enlarging. That there are no pores in the septum of the heart, so that the whole blood in the the right ventricle is sent to the lungs and round the pulmonary veins to the left ventricle. That the blood in the arteries and that in the veins is the same blood. The dynamic starting point of the blood is the heart not the liver. In one point only was the demonstration of the circulation incomplete. Harvey could not discover the capillary channels by which the blood passes from the arteries to the veins. This gap in the circulation was supplied several years later by the great anatomist Malpighi who in 1661 saw in the luugs of a frog by the newly invented microscope how the blood passes from the one set of vessels to the other. Harvey saw all that could be seen by the unaided eye in his observation on living animals. Malpighi only four years after Harvey's death, by another observation on a living animal completed the splndid chain of evidence. Harvey was greater than Malpighi.

JOHN HUNTER—*Physiologist and Surgeon.*

John Hunter was born February the 13th, 1728 at Long Calderwood in the parish of East Kilbride, Lenarkshire. He was the son of John and Agnes Hunter and was the youngest of ten children. Hunter is said to have made but little progress at school being averse to its restraints and pursuits and fond of country amusements. Being desirous at length of some settled occupation he obtained from his brother William permission to aid, under Mr. Symonds, in making dissections in his anatomical school then the most celebrated in London, intending should he be unsuccessful there to enter the army. He arrivad accordingly in the Metropolis in September, 1748. After succeeding beyond expectation with dissection of the muscles of an arm, he was entrusted with a similar part injected and from the excellency of his second essay, Dr. Hunter predicted that he would become a good anatomist. Seemingly John Hunter had recieved no insruction in preparation for the special course of life upon which he had entered. His brother with whom he was now intimately associated was one of the most brilliant exponents of mediccal science and enjoyed the society of the best cultured men of the age; but that it was through this circumstance that as stated by R. A. Stafford, "he was taught to think" and that his mind as has been surmised had previous to his coming to London been idle, heedless and aimless can hardly be concluded in the face of what the future revealed of the practical and inquiring turn and the originality of his mental disposition.

Rather we may assume with Cooper that Hunter was naturally gifted with powers of mind which rendered him to some extent independent of the training required by less exraordinary intellects. Dr. Ridge speaking of Hunter's permitted truancy from the grammer scool argues that early tuition and attainments at least of the kind imparted being inconsistant with a natural education of the sense are not favorable to the production of extraordinary genius.

Hunter's power of estimating what was worth doing and what could be done is by Dr. Maxon ascribed in part to his being "a man who had a free youth not over-taught nor over-strained and if it be true that the early part of life the school time, has long been spent in pursuits which ministers but little to the culture of the mind or to the communication and reception of knowledge useful to any class of society in proportion to the time consumed" it is possible that his dislike to scholastic exercises may have served to protect Hunter from inuflences opposed to that very endowment which made him preeminent as a teacher namely the power of perceiving the relation of numerous individual facts as illustrations of general priciples.

Hard-working and singularly patient

and skillful in dissection Hunter had by his second winter in London acquired sufficient anatomical knwledge to be entrusted with the charge of his brother's practical class with the members of which as also with the resurrection men he was a univeral favorite. In the summer months of 1749-50 at Chelsea Military Hospital he attended the lectures and operations of Chesselden on whose retirement in the following year he became a surgeon's pupil at St Bortholomews where Pott was one oft he senior surgeons. In the summer of 1752 he visited Scotland, Home and Ottley state that Hunter began in 1654 to assist his brother as his partner in lecturing; according however to the European Magazine for 1782 the office of lecturer was offered to Hunter by his brother in 1758 but declined by him on account of the insuperable embarrasment and objection which he felt to speaking in public.

In 1754 he became a surgeons pupil at St George's where he was appointed house surgeon in 1756. During the period of his connection with Dr. Hunter's school he in addition to other labors solved the problem of the descent of the testis in the foetus traced the ramifiations of the nasal and olfactory nerves within the nose experimentally tested the question whether veins could act as absorbents. Studied the formation of pus and the nature of the placental circulation and with his brother earned the chief merit of practically proving the function and importance of the lymphatics in the animal economy. On June 5, 1755 he was induced to enter as a gentleman commnoer at St Mary's Hall Oxford but his true instincts would not permit him to use his own expression "to stuff latin and greek at the university". Some three and thirty years later he thus significantly wrote of an opponent "Jesse Foote accuses me of not understanding the dead languages but I could teach him that on the dead body which he never knew in any langurge dead or living."

An attack of inflammation of the lungs in the spring of 1756 appearently caused by over-work having produced symptoms threatening consumption by which the promising medical career of his brother James had been cut short. Hunter with a view of residence abroad for a season obtained from Mr. Adair in October 1760 the appointment of staff surgeon in Hodgson and Keppels expedition to Belleisle with this he sailed in 1761. In the following year he served with the English forces on the frontier of Portugal. Whilst with the army he acquired the extensive knowledge of gun-shot wounds embodied in his important treatises on that subject published in 1794 in which amongst other matters of moment he insists on the rejection of the indiscriminate practice of dilating with the knife followed almost universally by the surgeons of his time. When not engaged in the active duties of his profession he occupied himself with pnysiological and other scientific researches. Thus in 1761 off Belleisle the conditions of the coagulation of the blood were among the subject of his inquiries. Later on land he continued the study of human anatomy and arranged his notes and memoranda on inflammation he also ascertained by experiment that digestion does not take place in snakes and lizzards during hibernation and observes that enforced vigorous movement at that season proves fatal to such animals the waste so occasioned not being compensated whence he drew the inference that in diminuition of a power of a part attendant on mortification resort to stimulants which increase action without giving real strength is inadvisable. A manuscript catalogue by Hunter probably written soon after his return from Portugal shows that he had already made a collection of about two hundred specimens of natural and morbid sructures. On arriving in England early in 1763 Hunter having retired from the army on half pay took a house in Golden Square and commenced the career of a London surgeon. Most of the Metropolitin practice at the time was held by Pott, Hawkins, Sharpe, Warner, Adair and Thompkins, and Hunter sought to eke out his at first slender income by teaching practical anatomy and operative surgery to a private class. His leisure was devoted to the study of comparative anatomy to procure subjects for which he obtained the refusal of animals dying in the Tower menagerie and in various travelling Zoological collections. In connection with his rupture of a tendo Achillis in 1767 he performed on dogs several experiments which with the illustrations in his museum of the reunion of such structures after division laid the foundation of the modern practice of cutting through tendons for the relief of distorted and contracted joints. In the same year he was made a fellow of the Royal Society. His first contribution to the Philosophical Transaction with the exception of a supplement to a paper by J. Ellis in the volume for 1766 was an essay on post mortem digestion of the stomach written at the request of Pringle and read June 18 1772 in which he first correctly explained that phenomenon as a result of the action of the gastric juice. Among his pupils were Edward Jenner, Guy, Kingston Physic,

Everad, Home, Lynn and Sir Astley Cooper. From the high reputation in their profession which these one and all attained some estimate may be formed of the weight and value of Hunters personal influence and teaching. From 1772 till his death Hunter resided during autum at a house built by him at Farles court Brampton where most of his biological researches were carried on. There he kept for the purpose of study and experiment the fishes, lizzards, blackbirds, hedgehogs and other animals sent him from time to time by Jenner, tame phesants, partridges a+ least one eagle, toads, silk worms and many more creatures obtained from every quarter of the globe. Bees he had under observation 20 years. Hornets and wasps were also diligently studied by him. On two occasions his life was in risk from his pets, once in wrestling with a young bull, and again when he fearlessly took back to their dens two leopards which had broken loose among his dogs. Perhaps no man busily engaged in professional practice has ever conducted so many physiological and pathalogical investigations in the animal world as Hunter. In his toxicological and other researches in which his experience had led him to believe that the effect of noxious drugs are nearly similar in the brute creation and in man he had already in 1780 as he states "poisoned some thousands of animals." In January 1776 Hunter was appointed surgeon extraordinary to the King.

Hunter in 1780 read before the Royal Society a paper in which he laid claim to have been the first to make out tha nature of the utero-placental circulation. He and his brother were estranged on account of this discovery both claiming the honor until the time of his brother William's last illness when he obtained permission to visit him. John Hunter died on the 16th of October, 1793.

Edward Jenner.

The discoverer of vaccination was born at Berkley, Gloucestershire, on May 17th, 1749. His father, the Rev. Stephen Jenner, rector of Rockhampton and vicar of Berkley, came of a family that had been long established in that country and was possessed of considerable landed property. He died when Edward was only six years old, but his place was admirably taken by his eldest son, the Rev. Stephen Jenner, who brought his brother up with fraternal care and tenderness.

Edward received his early education in local schools at Wottonunder-Edge and Cirencester, where he already showed a strong taste for natural history. The medical profession having been selected for him he began his studies under Mr. Ludlow, a surgeon of Sodburry, near Bristol; but in his 21st year he proceeded to London where he became a favorite pupil of the celebrated John Hunter, in whose house he resided for two years. During this period he was employed by Sir Joseph Banks to arrange and prepare the valuable Zoological specimens which he had brought back from Captain Cook's first voyage in 1771. He must have acquitted himself satisfactorily in this task, since he was offered the post of naturalist in the second expedition, but declined it as well as other advantageous offers, preferring to practice his profession in his native place and near his eldest brother to whom he was much attached. His speedy success in practice did not engross his intellectual activity. He was principal founder of a local medical society to which he contributed several papers of marked ability, in one of which he apparently anticipated later discoveries concerning rheumatic inflammation of the heart. He maintained a correspondence with John Hunter under whose direction he investigated various points in biology. He was a great favorite in general society from his agreeable and attractive conversation and the many accomplishments he possessed. Then he was a fair musician, both as a part singer and as a performer on the violin and flute, and a very successful writer after the fashion of that time. In 1788 he married and in 1792 he resolved to confine himself to practicing as a physician and accordingly obtained the degree of Doctor of Medicine from St. Andrews.

Finding that Berkley could not support a physician he began a few years later to visit Cheltenham annually. Meanwhile the discovery that was to immortalize his memory had been slowly maturing in his mind. When only an apprentice at Sodburry his attention had been directed to the relations between Cowpox and Smallpox in connection with a popular belief which he found current in Gloucestershire as to the antagonism between these two diseases. During his stay in London he appears to have mentioned the thing repeatedly to Hunter who being engrossed by other important pursuits was not so strongly persuaded as Jenner was of its possible importance, yet spoke of it to his friends and in his lectures. After he began practice in Berkley Jenner was always accustomed to enquire what his professional brethren thought of it, but he found that when medical men had noticed the popular report at all they supposed it to be based on imperfect inductions of facts.

His first careful investigation of the sub-

ject dates from about 1775, and five years elapsed before he had succeeded in clearing away the most perplexing difficulties by which he was surrounded. He first satisfied himself that the difficult forms of disease had been hitherto confounded under the term cowpox only one of which protected against smallpox, and that many of the cases of failure were to be thus accounted for and his next step was to ascertain that the true cowpox itself only protects when communicated at a particular stage of the disease. At the same time he came to the conclusion that the "Grease" of horses is the same disease as cowpox and smallpox each being modified by the organism in which it was developed, an opinion which is generally held at the present day. For many years cowpox being scarce in his country he had no opportunity of inoculating the disease and so putting his discovery to the test, but he did all he could in the way of collecting information and communicating what he had learned.

Thus in 1788 he carried a drawing of the cowpox as seen on the hands of a milkmaid in London and showed it to Sir E. Home and others, who agreed that it was "an interesting and curious subject," but by no means realized its practical importance. At length, on the 14th of May, 1796, he was able to inoculate James Phipps, a boy about eight years old, with cowpox matter. On the first of the following July the boy was carefully inoculated with variolous matter, but as Jenner had predicted no smallpox followed.

The discovery was now complete, but he desired to act without precipitation and was unable to repeat his experiment until 1798, owing to the disappearance of cowpox from the dairies. He then repeated his inoculation with the utmost care and prepared a pamphlet which should announce his discovery to the world. Before publishing it, however, he thought it well to visit London so as to demonstrate the truth of his assertion to his friends, but he remained in London nearly three months without being able to find any person who would submit to be vaccinated. Soon after he had returned home, however, Mr. Cline, an eminent surgeon, inoculated some vaccine matter over the diseased hip-joint of a child thinking the counter irritation might be useful and found the patient afterwards incapable of acquiring smallpox.

In the Autumn of the same year Jenner met with the first opposition to vaccination, this was the more formidable because it proceeded from Dr. Ingenhawz, a celebrated physician and man of science.

But meanwhile Mr. Cline's case and his advocacy of vaccination brought it much more decidedly before the medical profession of whom the majority were prudent enough to suspend their judgment until they had ample information—in this instance a very worthy decision.

But besides these there were two noisy and troublesome factions. One of which opposed vaccination as an useless and dangerous practice, while the other endangered its success much more by their rash and self seeking advocacy. At the head of the latter was one Dr. Pearson, who in November, 1798, published a pamphlet speculating upon the subject before even seeing a case of cowpox and afterward endeavored. by lecturing on the subject and supplying the virus, to put himself forward as the chief agent in the cause. The matter which he distributed which had been derived from cows that were found to be infected in London, was found frequently to produce not the slight disease described by Jenner, but more or lesssevere eruptions resembling smallpox. Jenner concluded at once that this was due to an accidental contamination of vaccine with variolous matter and a visit to London in the Spring of 1799 convinced him that this was the case. In the course of this year the practice of vaccination spread over England, being urged principally by non-professional persons of position, and towards its close attempts were made to found institutions for gratuitious vaccination and for supplying lymph to all who might apply for it. Pearson proposed to establish one of these in London without Jenner's knowledge, in which he offered him the post of honorary corresponding physician. On learning this scheme to supplant him and to carry on an institution for public vaccination on principles which he knew to be partly erroneous, Jenner once more visited London early in 1800 where he had influence enough to secure the abandonment of the project.

He was afterwards presented to the King, the Queen and the Prince of Wales, whose encouragement materially aided the spread of vaccination in England. Meanwhile it has made rapid progress in the United States where it was introduced by Dr. Waterhouse, the Professor of Physics at Cambridge, Mass., and on the continent of Eurode where it was at first diffused by Dr. De Carro of Vienna, who practiced it with the greatest zeal and discretion, and thence spread to Geneva. In consequence of the war between England and France the discovery was later in reaching Paris but its importance once realized it spread rapidly over France, Spain and Italy. Perhaps the most striking is the expedition which was

sent out by the court of Spain in 1803 for the purpose of diffusing cowpox through all the Spanish possessions in the old and new worlds and which returned in three years, having circumnavigated the globe and succeeded beyond its utmost expectations. Many of the expressions of enthusiasm seem to us strained and almost ridiculous.

Thus we read with surprise how clergymen in Geneva and Holland urged vaccination upon their parishioners from the pulpit; how in Sicily, South America and Naples religious processions were formed for the purpose of receiving it; how the anniversary of Jenner's birthday or of the successful vaccination of James Phipps was for many years celebrated as a feast in Germany and how the Empress of Russia caused the first child operated upon to receive the name of "Vaccinoff" and to be educated at the public expense.

The truth is that we who live in that security from the horrible and universal plague of smallpox for which we are indebted to Jenner's immortal discovery cannot realize the greatness of the blessing he conferred upon mankind.

This universal enthusiasm caused vaccination to spread over the whole world in six years. This conclusion might be drawn from the foregoing remarks; that though great as Jenner's mind was, the assertion that in the year 1799 vaccination spread over England being urged principally by non-professional persons of position. It seems evident that his humble professional brethren of his day did not intend that he should live to enjoy his great discovery.

The emancipation of death to so many of the human race, but preferred that death should remove him before they ascribed to him this great distinction. The devil will undoubtedly get many for doing what Jacob did, "stealing Esau's birthright."

Anæsthsia.

In the history of medicine are found many discoveries in the way of operations and improved instruments for surgical work. The minds of surgeons seemed to be directed more toward the anatomy of the body of what could be removed without killing and what could not.

There seemed to be paid little attention to lessening the pain during operations. Of course whiskey and morphine were used but not until the discovery. or preferably, the use of Ether, by Dr. Wm. T. G. Morton, and Chloroform by Sir James Y. Simpson. Most of us have lived in the days of Anæsthesia and do not know so much of the terrors of surgery in former years. It is said of Sir James Y. Simpson that after beginning his professional studies was so affected by seeing the terrible agony of a poor highland woman under amputation of the breast that he resolved to abandon a medical career and seek other occupation. Happily his intention was reconsidered and he returned to his studies asking himself the question, can no help be found to relieve some of its horrors. And as every one knows in a few years he became a high priest of Anæsthesia.

No braver or more gallant gentleman ever lived than Admiral Viscount Nelson at the siege of Cadiz, he lost an eye and after his right elbow had been shattered by a French bullet at Teneriffe he manifested the utmost courage, refusing to be taken to the nearest ship lest the sight of his injury should alarm the wife of a fellow officer whose own fate was uncertain, and when his own ship was reached he climbed up its side without assistance, saying: "Tell the surgeon to make haste and get his instruments; I know I must lose my right arm, and the sooner it is off the better." And yet so painful was he affected by the coldness of the operator's knife that when next going into action at the famous battle of the Nile he gave standing order, to his surgeons that hot water should always be kept in readiness during an engagement, so that if another operation should be required he might at least have the poor comfort of being cut with warm instruments.

There were many other terrors connected with operations besides the pain inflicted by cutting. There is danger of cutting the arteries, and if by accident this was done there was no way to control hemorrhage except with hot oil, red-hot irons, or the cautery; these surely must have been next to death.

The bravest deeds that may be recorded in the annals of all wars and in the history of all ages, will not tell of any good whose benefits have been reaped over and over again more than the addition of Ether and Chloroform to surgical practice.

He whose life work could add one thousandth part of good to suffering humanity as the life work of William T. G. Morton and Sir James Y. Simpson should consider it well lived. The world will little note, nor long remember what we say here, but lasting is the good which can benefit forever our race. And the world would say for us what it said for Nathan Hale, a young Connecticut soldier, who volunteered to go within the British lines on Long Island that he might learn the position of the enemy. On the way back he was arrested. No

trial was allowed him. He was not shot like a soldier, but was hung.

"I only regret," he said as he was about to die, "that I have but one life to give to my country."

So harmless is Anæsthesia, that Snow laid it down as an axiom that if an operation must be performed, however serious it might be, the administration of an Anæsthetic was justifiable on the whole and that rule has been pretty generally adopted without any manifest bad results.

Lister's Germ Theory.

The germ theory which has come so prominently before the medical world of to-day is another discovery which has already revolutionized surgery and its future may be brighter than its wonderful past and present has been. The germ theory brings us to a beautiful page in medical history. Lister, its great founder and exponent, began his experiments in 1860 at Glascow and continued them after his removal to the chair of clinical surgery in Edinburg.

DISCUSSION.

Dr. B. K. Hays.—I am glad the gentleman has seen fit to read the paper on the subject he has chosen. I have been convinced that the members of the profession do not take sufficient interest in our own history. If we would have enthusiasm on any subject we must know the history of the subject, what has been done on the subject. We would be ashamed not to know where Napoleon was born and what he did, we would be ashamed not to know the Greek philosophers, and yet how many of us are familiar with the life and work of Hippocrates, to whom we owe more honor than to all the Greeks that ever lived. We know of the great Romans yet know very little of one great man from among our number, Galen. We know that the members of our profession struggled against ignorance and superstition, struggled to accomplish great good in the same way in which we are now struggling, and if we would take courage, and become enthusiastic, undertake to do more than we are now doing, there is no better way to gain enthusiasm than studying the history of the past of our great men. 1616 is familiar in the annals of history as the year in which the immortal Shakespere yielded up his life. And yet how many know that is the year in which Harvey announced the circulation of the blood. While Napoleon was drenching the world with blood Jenner accomplished more than any other one man that lived. In 1809 an unknown man went to a cabin home in a neighboring State, without assistance, without anæsthetics, threatened by a mob, McDowell performed the first Laparotomy in the annals of surgery and as a result of that work hundreds and thousands of men are walking about to-day who would have gone to untimely graves. You are familiar with the names of the men who have gone down as martyrs; of infinitely more benefit to manking are the works of Simms, Gross, Hunter McGuire and others with whom I am sorry to say we are not more familiar. Here within our own State there is no name more dear to those who sit within the sound of my voice than Vance. His name will go down in history as perhaps one of the greatest men North Carolina has yet produced, yet I say unto you we lost from this society last year a man who should be as dear to posterity as Vance, —it is useless for me to tell you I refer to Charles O'Hagan. Since the Society met last, within 15 miles of my home, there have passed away three men whose names will be discussed here at the proper time. They are men who never acquired greatness as the world counts greatness, their business was to buildup, to save, to benefit those with whom they came in contact; two have been presi dent of the Society—Drs. William Cheatham of Henderson, and Jno. Tucker of Henderson. It seems to me that their names are worthy of a place in history. I wish to speak of another man who has lived in my county, Dr. Jno. W. Booth, who was a man of education, of scientific acquirements, who labored hard for those among whom he lived, a man whose name is called blessed among those where he lived, a man whose name should find a place in the history of medicine in North Carolina.

Dr. H. W. Lewis.—In listening to the most interesting paper I must confess a feeling of some disappointment when he reached the subject of anæsthesia. The late Marion Simms treated that subject most thoroughly, and gave Long the credit he deserves.

Antitoxin Animal Extracts and Serums.*

By H. T. Bass, M.D., Tarboro, N. C.

Mr. President:—I am deeply grateful for the honor conferred on me by being made your chairman of the Section on the Practice of Medicine, and I promised myself that I would search the literature of practical medicine and compile a paper that

*Read before the North Carolina Medical Society, at Durham, N. C.

would be entertaining and, at the same time, instructive, to this body, but I shall fall short of it, for I find it to be a greater task than I at first thought, and the honor should have fallen into more competent hands.

The opening of the section with an address carries with it certain responsibilities, for in a measure, I am but the spokesman, and my utterances are the work of others. The Chairman of each section is expected to prepare an address on the recent advances in the branch belonging to his section. This I have only in a partial way endeavored to do, for the work is of such large dimensions, owing to the large number of drugs and chemicals that the pharmacists and chemists have added to our materia medica, and which the profession has applied to the treatment of diseases. I will confine my remarks to some of the animal serums, antitoxins, and extracts, and their application in medicine.

The chief interest in therapeutics and practice of medicine during the year has been in the experiments and investigations in animal serums and extracts. It is too soon to even predict the extent to which this treatment will develop, but from the various lines on which the investigators are working, it seems probable, if they are successful, that the whole field of medicine will become involved, and our materia medica will in the future consist largely of antitoxins, and extracts with the method of their preparation and administration. Diphtheria, tetanus, septicaemia, (embracing erysipelas and puerperal fever), pneumonia, typhoid fever, yellow fever, leprosy, plague, cholera, tuberculosis, cancer, rabies, snake-bite, and anthrax, are already on the list, and in the very near future we may have many more to add. Most of the above named diseases, according to the bacteriologists, have their distinct toxine. It is now generally recognized by the medical profession that in diphtheria the injection of the antitoxin serum gives better results than any other treatment, and has lowered the mortality in a marked degree. Antitoxin is now used in all hospital practice, but judging from the mortality in the large towns, and country districts, it does not seem to be used by the general practitioner, as it should be. With the statistics before us the medical man who does not use antitoxin in a case of dyphtheria, if not criminally responsible, is almost so.

Dr. Edwin Rosenthal, in an aticle read at the last annual meeting of The American Medical Association, states that he received replies to inquiries made of the physicians from one hundred and fifty cities in this and other countries, and compiled the following statistics. Number of cases of diptheria previous to the serum treatment, 183,266, with a mortality of 34.4%. Number of cases since the antitoxin period, 132,546, with a mortality of 14.6%, and he further states that all of the above cases were not treated with the serum, and in compiling the cases treated with the serum alone the mortality was 9.8%. In an investigation made by the American Pediatric Society, of 615 physicians 600 were strongly in favor of the antitoxin, and the per cent was 4.8 in the cases they had treated with the antitoxin during the first three days of the disease. I have treated only one case of diphtheria with antitoxin. Called to see Mary M.; found her with high fever; temp. 104.5, coated tongue, restless, sore throat with membrane. Gave her hyd. chlo. mit. with quin. sulph. and an antipyretic. The next morning gave 10 c.c. of H. K. Mulford's antitoxin; the fever dropped to 102 within six hours. I then gave 10 c.c.; the fever rose to 103 during the next four hours; I then gave 10 c.c.; the fever dropped and never went above 101 again. The antitoxin was given every 4 to 6 hours in 10 c.c. injection until 80 c.c. was given in all. The wipings of the throat were examined and the diagnosis was confirmed. Hydrogen peroxide and Lofflin's antiseptic throat solution was used locally, and internally tinct. ferri, chlo. and chlo. pot. The case recovered.

TETANUS.

In the laboratory where the amount of tetanus toxin is known, and the antitoxin serum is given, it acts nicely; but, in the human being where the amount of toxin is not known, it has not done so well. Yet, it should be used in all cases. Stentzing states that, in 96 cases treated with antitoxin, 35 recovered. Behring gives it not later than the 26th hour, and recent experiments have shown that the antitoxin prevents further infection, but it cannot cure after the infection has reached the spinal cord and brain. In the Medical Record three cases are cited by Wilms, treated according to the time and rule of Behring, all fatal on the 3rd, 4th and 6th days, and the course of the disease did not seem to be affected in any way. The dose should be large, and a prophylactic injection of 500 units should be given immediately after the first symptoms.

ERYSIPELAS.

Antitoxin, or rather, antistreptococcus serum, is being used with good results for erysipelas, according to Anderson and

Roberson; also Harrison and Anderson speak favorably of its use. I will cite only one case that fell under my care. Called to see Mrs. M., aged 67; found her with erysipelas of the nose and cheek; temp. 104, stomach irritable, and she was very much prostrated. I gave her an injection of 10 c.c. of antitoxin; within six hours the temp. had fallen to 102; repeated the injection four hours later; the temp. was 103; gave 10 c.c. of the antitoxin again. Six hours later temp. was 101, and the other symptoms were better, yet the erysipelas extended over the face and head. I continued the antitoxin every six hours until I gave six bottles of H. K. Mulford's antitoxin, 10 c.c., each. The case gradually improved. The antitoxin was the only medicine used internally. Locally 33.1-3% of icthyol in lanolin was used.

PUERPERAL SEPTICÆMIA..

Antitoxin in puerperal septicæmia is still on trial. Prof. B. C. Hirst said to an inquiry, "I have given the antitoxin of streptococci infection an extensive trial, but have not been pleased with it. "The report of a committee on the subject published in the American Journal of Obstetrics for 1899, was not favorable to the antitoxin, and there has been nothing since to change the opinion. Henry J. Garrigue, in an address before the County Medical Society of New York last December, said the profession had apparently proven the antistreptococci serum not only useless but harmful. I used it in one case with apparently good results. Mrs. C., age 28, puerperal sepsis on the fifth day after confinement. Temp. 105. Injected 10 c.c. antitoxin; six hours later temp. 102; repeated the injection; temp. six hours later 102.5. Repeated the injection; temp. 101; six hours later, repeat it, and every six hours thereafter until six bottles were taken, 10 c.c., each. The womb was curretted and antiseptic washes given with food and stimulants; patient recovered.

PNEUMONIA.

Washburn, Pain and others report favorable results from antipneumococcic serum in pneumonia. Prof. T. R. Brown, in a paper read before the Clinical Society of Baltimore, December 7th, 1900, reviewed the subject of antitoxin serums in pneumonia, and compiles 72 cases with 4 deaths, a per cent of 5.5, and also cites the statistics from other investigators not so favorable to the serum. Tolamon, in the French Journal of Medicine and Surgery, February 28th, 1901, gives the statistics of 50 cases treated with the serum, with 7 deaths, 14%, and under other treatment in the year 1899, the per cent of deaths was 37. To a question asked Prof. James Tyson in regard to the antitoxin, he said, "I am using the antipneumonic serum whenever I get a chance; but I feel that I have not used it sufficiently to justify any conclusions, except that it is perfectly harmless and may be used fearlessly." Prof. J. C. Wilson, in a paper read before the American Medical Association, June 5th, 1900, in Atlantic City, on serum-therapy in croupous pneumonia, reviewed the subject fully up to date. He cites 18 cases treated in the German Hospital, Philadelphia, with four deaths, 22.2%. The statistics mentioned above, and the large per cent. of mortality in pneumonia, should at least make us watch closely the future work in this field. The results obtained up to the present time are, in many respects, unsatisfactory, yet, they are at least promising. I used it in one case, Mr. M., age 51; at the time of giving the serum he was unconscious; respiration 50, pulse 150, temp. 106; skin dry, lips and tongue parched. Gave injections of 20 c.c. H. K. Milford's serum; the pulse improved in character, respiration fuller and skin moistened 2 1-2 hours after first injection; temp. 106, repeated injection. Saw the patient 7 hours after the second injection and found temp. 108, respiration 50, pulse 150, skin acting freely. Repeated the injection; patient died within half an hour. I will say I had no hope for the patient, but the label around the bottle containing the serum recommended it in just such cases, and I gave it.

YELLOW FEVER.

Sanarelli's antitoxin in yellow fever is used, and good results are claimed for it by the Professor, and his experience is being confirmed by others. Sixty-six per cent of the total number treated recovered. Sanarelli recommends that 150 c.c. be given at a dose, and that part be put in the vein and part under the skin. The average dose is 20 to 65 c.c. and repeated every 6 to 12 hours.

TYPHOID FEVER.

Typhoid fever is treated with the cultures of serum with favorable results. There was 75% less typhoid fever among the soldiers inoculated in South Africa by Prof. Wright, of Netley, than there was among those not inoculated. Andres, in his last book, on page 62, cites E. Faukel and Maunchot as having treated 57 cases of typhoid fever with cultures of serum with favorable results. Jez. M. Wiener, (Med. Wochen, page 345), cites 18 cases treated

with anti-typhoid serum, or extract, with good results, the pyrexia becoming remittent, the pulse less and stronger, the tongue cleaned off, and the disease shortened. Dose, teaspoonful to tablespoonful every two hours. The subject is being investigated and there has been no final opinion rendered in favor of protective inoculation. The latest statistics by Prof. A. S. Wright, of Netley, in The Lancet of February, 1901, page 399, 539 officers, men and women in the 15th Hussars at Meerut, India, 360 were inoculated in England against typhoid fever; (2) 0.55% contracted the fever, with (1) death 0.27%, but of 179 not inocculated (11) 6.14% contracted the fever with 6 deaths (3.35%). The above figures warrant the conclusion that the protective inoculation was the cause of the difference, in some degree, at least.

LEPROSY.

In leprosy, Koch's tuberculin was tried and failed to be of any good. Beaven and Rake, among others, say that antagonistic inoculation is practically a failure in its results.

PLAGUE.

In Plague, Prof. Colmeth is said to have gotten admirable results both prophylactic and curative with serum from the Pasteur Institute, but more recent reports by Haffkins are not so encouraging for the serum.

RABIES.

At this time there seems to be no one who doubts the efficacy of the Pasteur treatment. The per cent of deaths in 13,817 cases treated between the years 1886 and 1894 was only 0.5%. In the report of the Pasteur Department of Baltimore City, 200 cases are reported as treated with a mortality of 1-13 of one per cent.

SNAKE POISON.

Sewall, as long ago as 1887, wrote of immunising pigeons against rattle-snake poison by inoculation of increasing intensity. The serum of artificially immunised animals has been found of value in snake poison. The missionaries report that the various decoctions of the witches of Africa for the cure of snake bites have the liver of the snake in them. The antitoxin action of the liver, or bile, is generally supposed to be a modern idea. The Literary Digest of April 6th, 1901, quoting from the Scientific Revue of Paris, says the people of India and the interior of France use the bile, and the liver, of the dog for hydrophobia, and that of the snake for snake-bites, with success. Fraser, of Edinburgh, proved that the bile of the serpent is an antidote. All of the antitoxins are under investigation and no doubt in a very short time many will be added to the list, and some dropped.

We are, at the present time, using another class of medicines in the treatment of diseases, a class termed animal extracts. Animal tissues have been used in the treatment of various diseases from the earliest history of medicine, and are handed down to us from the fathers of medicine, Hippocrates and Galen, and from the Shamans and Wizzards of the savage tribes. To-day, in heathen China, and the eastern lands, the viscera of animals, and the bodies of reptiles, are used as medicine, and are in high favor. You recall the story of the Japanese princess, as told by Edwin Arnold, when it became necessary to get the liver of a fox to cure the princess, and in gratitude for kindness once shown to the foxes by this good princess, the wife of a fox brought the liver of her husband in a basket and placed it at the foot of the princess' couch.

There seems to be nothing new, and history is constantly repeating itself, for now the extract of the liver, and the bile, is used as an antidote for some of the poisonous toxins. At this time, the practice of seeking in the glands and viscera of animals for medicines has been revived. Among the first to make the extracts prominent was Brown Sequard with his testicular juice; then the British physicians with the thyroid glands, followed closely by spinine, cardine, cerebrine, ovarine, and many other gland extracts compounded and extracted by Hammond & Co., Washington, D. C. Other investigations did not get the same results with testines and the other extracts claimed for them by its originator, and there is no testimony in favor of cerebrine, etc., save that of ex-Surg. Gen. Hammond & Co., who manufactured the products. Thyroid gland has great therapeutic value, according to S. Solis Cohen and others, who have written on the different animal glands, and their extracts, and the use of them in many diseases.

Thyroid is used in Myxœdema, cretinism, goiter, exophthalmic goiter, acromegaly, obesity, diabetes-millitus, locomotor ataxia, and some skin diseases such as psoriasis, lupus and eczema. Thymus gland and its extracts is used in about the same class of diseases as the thyroid. In an address delivered by Dr. S. Solis Cohen before the N. Y. County Medical Association, May 21st, 1900, he recommends it in goiter, exophthalmic goiter, cachexia strumipriva, locomotor ataxia, whooping cough, and bronchial asthma, urticaria, and the nervous disturbance of the menopause, and he

also cites references to other investigators who have used it in similar diseases.

Mahone and Babcock obtained gratifying results with thymus in acute mania and melancholia, puerperal and climatic insanity, and primary dementia. Drewry and Henderson conclude that thymus extract is of very little value, if any, in any form of insanity. Gaither and others recommend it in delayed union of fracture.

The pancreas, and its extracts, are used in diabetes and some digestive disorders accompanied with cardialgia.

Suprarenal gland, and its extract is a good local astringent, and is used in treating Addison's disease, hay fever, nasal congestion, and is found of much value in inflammations of the eye, such as conjunctivitis, keratis and like diseases where astringents are used.

PAROTID GLAND EXTRACT.

Sholer, in Philadelphia Medical Journal, August 4th, 1900, recommends the use of the extract in ovarian neuralgia and dysmenorrhœa, when there is no structural change. The daily dose is from 6 to 12 grains.

The splenic extract is recommended in goiter and insanity due to physical exhaustion. I have only mentioned the most prominent animal extracts, and, in a general way, the diseases in which they are used, without citing all the different writers, and their papers written on the subject of extracts. You can well see from the above that we are, in a scientific way, going back to the practice of the witches and ancient heathen, and to the practice of the lizzard-giving Chinamen.

DISCUSSION.

Dr. J. A. Burroughs.—Diphtheria antitoxin and the antidote that we have from Pasteur for hydrophobia are the only ones in which I take any stock as far as my personal experience goes, in these animal preparations. I have had some experience in the anti-streptococcus serum and have possibly used as much as any man in the State and I must say I used it with a view of testing; I have used it in mixed infection of tuberculosis, in erysipelas, and it has been an absolute failure in every instance and I have used preparations from several different manufacturers, largely from one of the best in the country. In many instances there were produced abscesses and I regard it as a dangerous measure, totally worthless. In erysipelas I think the Doctor would have succeeded better if he had washed with pure carbolic acid and washed it off with alcohol in about 15 or 20 seconds. I have used most of the anti-tubercle serums which have been put upon the market and they are absolutely worthless. They have no place beyond a diagnostic value, and should be largely confined to cattle. If you have a case that is very doubtful before the bacilliary stage arrives you may be able to make a diagnosis with tuberculin. I think the antitoxin treatment in diphtheria is the only treatment for the disease. You can have a case of diphtheria in a house with a lot of children and if you will inoculate the children in 24 to 36 hours after exposure, the chances are that you will not have any more diphtheria. It is the only treatment that promises good success in diphtheria. I have had an opportunity of using it in probably 25 to 35 cases and it works like magic, but I have never used it in small or frequently repeated doses. I give one large dose and the age of the child has very little to do with it. I would not hesitate to give 1,500 to 2,000 units to a child two years old. There will be no constitutional symptoms in the child more than in the adult. I can recall but one instance in the number of cases where I have had to give a third dose.

Dr. R. S. Young.—My experience has been confined to the diphtheria antitoxin and it is hardly worth while to repeat that this is the only treatment now for diphtheria. My experience has been confined to probably less than 15 cases, and while there may have been faulty diagnosis in some of them there was only one fatal case of diphtheria and I fully concur in what Dr. Burroughs has said about the dose. I have rarely given less than 1,500 units and it is rarely necessary to repeat that dose. I use no other treatment except the injection of the antitoxin.

Dr. H. W. Lewis.—I have had two cases only that I have treated with the diphtheria antitoxin. I gave in those the large dose as mentioned by Dr. Young, but in addition I omitted nothing of the local treatment. I had the fauces sponged with peroxide of hydrogen and gave stimulants and strychnine. They both got well. Prior to the introduction of the antitoxin I was the witness of a scourge of diphtheria in the county of Northampton. In one house where there were 7 children it killed all except the mother and the nursing babe. I think perhaps the greatest advancement that has been made along any line of therapeutics is the introduction of the diphtheria antitoxin I believe that every country doctor ought to have some and keep it.

Dr. Geo. W. Long.—In pseudo-membranous laryngitis or true croup I had the misfortune to witness two death in my community which occurred after having

had the benefit of everything that could be done in the old way except tracheotomy, and the parents would not consent to this. I had no experience in the use of serums, but the next case to which I was called of a similar nature, I injected 2,000 units of P., D. & Co.'s serum into cellular tissue of thighs, at different points, using a sterilized hypodermic syringe. This was done at 6 P. M Patient showed improvement during the night and by morning was so much better that the friends generally could notice the change. There was no other injections of the antitoxin, and the recovery was entirely satisfactory. I used the same treatment in another case under similar circumstances with a good result. I have tried the same treatment in two cases in the advanced stages and lost both cases. I mention these cases from memory and without any attempt to go into details. All these patients had been treated by competent physicians before I was called into consultation, and there was no difficulty in our agreeing on diagnosis, and while there may have been some mistake about the diagnosis, and it is possible that the two recoveries might have taken place without the use of the antitoxin. I can but be led to the conclusion, in view of all the circumstances, that it had much to do in modifying the course of the disease and in hastening recovery. I should feel emboldened to try it further should occasion present itself. I do not suppose there is one here who has less patience with those persons who have a weakness for calling every case of follicular pharyngitis diphtheria and every case of fever typhoid fever.

Dr. I. M. Taylor.—It has not been my fortune to use any of the serums, but it has been my fortune to use on two occasions thyroid extract in the treatment of two cases. They were two prominent cases and we expected recovery. We began to use thyroid extract, beginning with 10 grain doses, reaching as far as 60 grains in a day with prompt benefit in each and in one a complete recovery; in the other there was a fair degree of return to mental health. So that the thyroid extract is still on trial in insanity and is at present in my mind a part of the treatment you can apply to these cases.

Dr. F. R. Russell.—I have recently had a case of well-developed myxodema. I put patient on thyroid extract grain V three times a day and the result was all that could be desired. Of course the thyroid feeding had to be kept up and in this case it has been, probably 6 months, and no one could tell there had been any trouble.

Dr. McAnally.—In regard to the antitoxin of diphtheria I do not think those who have lived in smaller towns have an opportunity to test it. In the northwestern States there is a great deal of diphtheria and in the large sense there they have it and the Health Board demands the use of the antitoxin and a tube is sent to each physician who pronounces a case of diphtheria and he takes out the true culture and sends it to the microscopist and a diagnosis is made and the antitoxin serum is used in all cases without local treatment and nearly all cases recover. I have such a disgust for the animal extracts.

Dr. Bass.—It is fortunate for me and the commnity in which I live that it has very little diphtheria. I have only had an opportunity of treating 3 cases. One was treated with the old treatment in connection with the antitoxin and recovered. The other two I saw some distance from the town in which I lived and I did not know what it was. I knew it was some toxine disturbance, but about the time the membrane appeared in the throat the child died. There was another child in the house who developed it pretty soon. He was a poor man some distance from town and I hesitated about getting the extract for him and did not use it and the children died under the old manner of treatment. I regret very much that I did not go to the expense and buy the antitoxin myself. I notice the gentlemen here use the term unit. I do not know what a unit of antitoxin is. We have no standard of that except what the manufacturer says about it, which is indefinite, and just what 10 c.c. means in units I do not know. I am glad the gentleman is using it because as I said in my paper the statistics are very incomplete from the small towns.

President Baker suggested that the Secretary of the Board of Health devise some means of having bacteriological test made for the diphtheria bacillus.

Dr. Lewis.—The appropriation made by the State Board of Health is insufficient, but we were successful in persuading the Department of Agriculture to do bacteriological work free of charge, but from the response that has been made to that I feel discouraged and I doubt very much whether if the offer was made to the profession to have the bacteriological diagnosis made they would avail themselves of it. I base that upon this experience. Some years ago Dr. R. H. Whitehead, who was certainly skilled in that line, agreed that he would make Widal's test for typhoid fever for any physician who might desire it, free of charge.

About how many responded to this offer, Dr. Whitehead?

Dr. Whitehead.—I think I had one.

Dr. Lewis.—That is the discouraging thing about it. My recollection is that about 10 took advantage of the offer to have bacteriological work done by the Board of Agriculture. I sent a letter to every Doctor whose address I could secure in regard to the offer of the Department to make these examinations. In the past 4 months 10 physicians had this done. I will be very glad, however, to see if anything of that kind can be done in the laboratory of the Department of Agriculture.

The Prevention of the Sequelae of Scarlet Fever and Measles.*

By Edmund Harrison, M.D., Greensboro, N. C.

I shall not waste your valuable time in apologizing for my selection of a subject, but beg of you that you give my words a little attention, and I think you will agree with me in seeing that the subject is of far more importance than its title would at first indicate.

It is impossible to draw a distinct line between the complications and the sequelae of these two diseases, for the former are but the forerunners of the latter, and to prevent the former is to render the occurence of the latter impossible, therefore I shall not attempt any decided distinction.

The medical science is rapidly becoming what it properly should be—preventive—and where within the scope of medicine is prevention so important as in these two diseases, for do they not attack almost all, and usually at an age when almost all of life is ahead?

How often is it that we come across a victim to the sequelae of these troubles? Here we see one deaf, here one partially blind, there a case of paralysis, and there again a total loss of special senses.

Without an attempt at a regular arrangement, I shall take up some of the more important sequelae, and perhaps I may be the cause of preventing the sale of a few ear trumpets, eye-glasses, nasal syringes, kidney and consumption cures (?) and even straight-jackets. The ears, eyes, nose, throat, lungs and kidneys are the organs which most frequently have to bear the burdens of these diseases, but the nervous system also has its share, and when it is affected, it is most serious. If we question our learned brethern the eye—ear—nose and throat specialists, they will tell us that where these organs have been crippled by scarlet fever or measles, it is next to impossible to make a cure of the trouble.

The eye sequelae are fortunately not frequent, but occasionally occur in both diseases.

We have an extension of the inflammation to the conjunctiva, setting up a conjunctivitis which is usually mild, but sometimes ophthalmia of severe type sets in, ulceration taking place, and upon cicatization the cornea is left uneven and with decided opacities, wnich not only destroy the beauty of the eye but shut out the light and cause an irregular refraction which interferes seriously with vision. I have seen one case in which the opacities were so dense as to entirely destroy vision, the patient being unable to see fingers held in front of the eye. This case followed a severe attack of measles. How can this be avoided?

If every physician will treat the first appearance or conjunctival imflammation, there will never be ulceration. The treatment I have used with perfect success is so simple that I hesitate to give it. Keep the eyes protected from strong light, forbidding all reading or other work likely to produce congestion; keep cold applied (best with a lump of ice in absorbent cotton) as a continuously as possible, and twice a day two or three drops of a 1% Sol. of Silver Nitrate in distilled water, is dropped into the eye. This solution should not be used at night.

The ear suffers more serious damage from these two diseases than any other organ. Here scarlet fever is the chief aggressor, but measles too must occasionally plead guilty. As with the eye, here too is an extension of the inflammatory process; from the throat and nose, though the eustachian tube to the middle ear and thence to the mastoid cells. If we take time to notice it, those cases of scarlet fever with ear complications are the ones in which the pharyngeal symptoms are most marked—scarlatina anginosa. The inflammatory process extending along the small eustachian tube soon occludes it, but the extension continues, and the middle ear first affected with only a catarrhal inflammation is soon a purulent cavity without drainage. Then the severe earache begins, and unless we are watchful, the mastoid cells become infected, or the drum-head is ruptured, or the latter may follow the former. Thus is started what may give rise to total destruction of the tympanic membrane, ossicle

*Read before the North Carolina Medical Society, at Durham, N. C.

and mastoid cells, with a permanent impairment if not total loss of hearing.

The treatment to prevent this unfortunate condition is much more trying and unsuccessful than the treatment of eye complications, but should, on this very account be most assiduous. The preventive treatment is a treatment of the nose and throat symptoms, and should be begun as soon as possible.

The throat should be sprayed with a good astringent antiseptic solution, such as carbolic acid gr. xx, potassuim chlorate gr. xl, glycerine f ʒi, water to f ʒiv, for the mild cases, and where the secretions are offensive and the utceration marked, the following will do much to prevent extension; tinct. iron f.ʒss, potas. chlorate. ʒij, glycerine f.ʒi, water to f. ʒiv, spray every 3 hours.

Sometimes it becomes necessary to paint the whole affected area with Monsel's solution, and I do not hesitate to resort to this heroic measure. The nose should be kept as clean as possible with a douche or spray such as Dobell's solution, using this every four or five hours. Should the inflammation extend into the tubes, notwithstanding our efforts to prevent, then must we watch the membrana tympani, and as soon as we are certain that pus is within, and does not drain back through the tube, the membrane should be punctured at the most prominent point, and the pus driven out by inflation if that be possible. Usually no other treatment is necessary, but in case the mastoid cells are already involved and an obstinate otitis is present, then should mild irritations be employed, following with a mild antiseptic powder blown into the cavity.

Little need be said in regard to the nose and throat sequelæ, for while these are frequently met with, the same treatment which applied to the prevention of the ear complications will apply here.

As regards mortality, by far the most important sequelæ of both of these diseases, but particularly measles, have their source in the lungs. Here we find that great destroyer of child life, broncho-pneumonia; occasionally a true lobar pneumonia or a plurisy. It is a rare event for measles to run its course without a bronchitis, in fact, you frequently hear a mother say, "It is only the measles cough," but this mild bronchitis, may at any time extend into the smaller tubes where it plays such havoc, that should the patient be so fortunate as to pull through this attack, the lungs will be left in such a condition that throughout life they seem ready to be reattacked from the slightest exposure. and always a suitable and favorable culture field for the bacillus tuberculosis.

Galloping consumption following measles particularly, but sometimes scarlet fever, is a pitiful wail which all of us must frequently listen to. These mild coughs should receive early treatment, and this treatment must be insisted upon. First should we impress upon our nurses the importance of protecting the little ones from exposure, and too early liberty. Keep them in bed as long as the cough is bad.

I use a simple expectorant as soon as cough is noticed, and my sheet-anchor in the treatment of respiratory troubles of children is ipecac. Paregoric, syrup of ipecac, and syrup of tolu in proportions and doses to suit the various ages has done much to prevent serious lung complications. After broncho-pneumonia has asserted itself, then must we treat it as we would elsewhere, and woe betide the physician who does not realize the danger in which his little patient is. Pneumonia and pleurisy are treated as such.

Fortunately the nervous sequelæ are not common, but when the poison of scarlet fever does direct its energies against the nervous system, we may be prepared for anything.

The cases in which the temperature remains high for a long time, nervous twitchings and convulsions present and sleep a matter of impossibility, will almost always leave us a patient with some permanent nervous taint, such as a crossed eye, a dull ear, a thick tongue, or even a total loss of any or all of the senses of sight, hearing and speech. But most distressing of all is the loss of mind.

The treatment is to reduce temperature by means of cold—especially cold to head, and to control the nervous manifestations with a full allowance of chloral hydrate with or without the bromides. Produce sleep and rest at all hazards.

It is a matter of debate whether or not chronic disease of the kidneys follow these two diseases. We all know that it is rare that we see a case of scarlet fever in which, at some time during its course, albumen does not appear in the urine, and we also know that our worse cases of acute parenchymatous as well as acute interstitial nephritis are met with in the latter stages of this disease, therefore it is very easy for me to believe that a kidney so affected is very liable to chronic disorder. The treatment is to prevent exposure during desquamation, and if albumen be present stimulate excretion by kidneys, skin and bowels. Here I have found nothing so serviceable as cream of tartar together with warm baths,

The other sequelæ are too rarely met with for me to ask more of your time, but in con-

clusion I wish to say that as a general practitioner, I beg of you of like calling not to think too lightly of the so much neglected disease—measles—but remember that it has not always done its worse by the time desquamation is over.

I have not attempted to *teach* any one anything, but only to call attention to what we all know, but the importance of which we too frequently forget. I have avoided all new remedies purposely, for I believe that the old and tried friends are more powerful because we are familiar with their action.

108 N. Elm St.

Nitrate of Silver in Typhoid Fever.*

By J. T. J. Battle, M.D., Greensboro, N. C.

It is with some reluctance and considerable hesitation that I ask your attention for a few minutes, to an old remedy in an old disease, but having used it continuously for the past five years and carefully noting the results to see if I could detect any advantage for it over any other remedies, or the expectant plan, I have arrived at the conclusion that it mitigates the symptoms, shortens the duration of the fever, and prevents relapses. My results have been better with this treatment than with any I have tried, such as quinine, carbolic acid and iodine, sulphocarbolate of zinc, salol, &c. The Woodbridge treatment I have never tested, as the silver was given me as satisfactory cures as was claimed for that.

In casting around for a reason why this particular drug should be of any special benefit in this disease, I have the following points to offer in its behalf:

It is antiseptic, and this seems to be an essential aid to treatment in this malady. All of its combinations and the metal itself is detrimental to germ life.

Its mode of elimination gives it a two-fold effect, for instance, it is largely excreted by the liver and intestinal glands, it stimulates the liver and helps to keep up the flow of normal bile, which is so essential, for its antiseptic as well as digestive action, and its favorable effect on the mucous membrane, relieving any catarrhal trouble if any should be present

The bacillus typhus abdominalis finds its way through the muocus membrane down to the sub-mucosa, and in this location no antiseptic which is confined to the lumen of the bowel has any effect upon them however, the silver solution is quite extensively secreted by the intestinal glands, and in this way it comes in direct contact with the bacillus and thus has an opportunity to get in its germicidal work, besides stimulating the glands to their normal function.

If there should be any ulcers or diarrhea, the very salutary influence silver nitrate has over these is too well known to discuss but simply mention it in passing. The nervous system is calmed and quieted, and refreshing sleep is the consequence.

In administering it I generally prescribe in pills containing from $\frac{1}{4}$ to $\frac{1}{2}$ grain every two to four hours, according to the urgency of the symptoms, and direct a pill to be given about an hour after albumin water, as peptones readily dissolve the nitrate and this solution does not coagulate albumen. However,if an albuminate should be fomed in the stomach, it is soluble and will soon be taken into the circulation.

I do not recommend this as a specific, but when a patient is under its influence, baths do not have to be given so often or so long to lower the temperature within the bounds of safety, and sponging has sufficed, without resorting to the pack or tub.

I have had only one patient to relapse, and mean duration of the fever has been about 19 days, some cases, I at first diagnosed as typhoid, which recovered in from 7 to 10 days, are not considered in this paper.

My success has been very satisfactory, so much so that I feel warranted in continuing it.

*Read before the North Carolina Medical Society, at Durham, N. C.

Treatment of Tuberculosis.*

By H. B. Weaver, M.D., Asheville, N. C.

Considering that Tuberculosis is the most prevalent and fatal disease that affects the human race; that seven per cent. of all deaths are attributable to this disease, which sum is more than all other contagious disease put together, it must be admitted that efforts at prevention and cure are in the highest degree needful and proper. At the same time a thorough knowledge of the true nature of various forms of tuberculosis with their pathological lesions, can alone lead to a correct understanding of the principles governing its successful treatment.

It is proper to state in the outset that the consensus of medical opinion is practically unanimous regarding the following facts:

1. That pulmonary tuberculosis, which is by a large majority the most common form, is an infectious, inflammatory disease, charac-

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terized by the presence of new-formed granular tissues within the intestitial tissues of the lungs in the form of a tubercle mass with a germ nucleus.

2. That there are two prime factors in the causation of every case of consumption. (1) the *specific* or essential cause is the tubercle bacillus, an ærobic non-motile, rod-shaped, vegetable micro-organism which is contained in the dried sputum of a consumptive and is conveyed to the lungs of a non-consumptive by inhalation of this dried and pulverized phthisical sputum which in most parts of the world floats as dust in the air in such quantities that it is taken in with the breath of everybody.

But this special cause is powerless to act unless there be a certain *predisposition* to the disease, inherited or acquired.

The startling discovery of the cause of tuberculosis, announced first in 1882, by Koch, has so revolutionized medical thought, that to-day hereditary tuberculosis is no longer regarded as an etiological factor, there being but 18 authentic cases of congenital tuberculosis on record. And in those rare cases the infection is not transmitted from the parent to child; it is only *acquired*, not inherited, *in utero* through the placental circulation, for there can be no tuberculosis without tubercle bacilli, and the tubercle bacili, like all other bacteria, cannot be inherited, but a susceptibility to their invasion can be. Or, rather some vice of tissue—some abberation of function—can certainly be transmitted from parent to child. This susceptibility can be more fully developed under the influence of certain co-operating conditions, which may properly be called predisposing causes. Such are excessive confinement in doors in bad air, overwork, mental strain, poor food, moist soil, certain trades and occupations which are debilitating and enervating. On the other hand, these predisposing causes probably never produce consumption without the fructifying influence of the specific cause, Koch's tubercle bacillus. The existence and co-operation of both are essential in the production of every case of the disease. Without this predisposition or diathesis which may be innate or acquired, any individual may breathe in, or swallow with food, millions of bacilli tuberculosis with impunity; while with this diathesis or predisposition he will escape only, if he can escape contact with the micro-organisms, which in most parts of the world is impossible for any length of time. The great Christian parable of the sower and the seed, some falling on good ground, spring up and bring forth much fruit, and some on stony ground and perishing, is here particularly applicable.

Few subjects, of late, in pathology have been the source of more careful investigation and learned discussion, than the origin of the histological elements of the tubercle.

Baumgarten and others first taught that the fixed cells in the connective tissue underwent karyokinetic changes which were the source of the giant cells. Metschinkoff and his school with equal emphasis declares that they find their origin not in the fixed cells, but exclusively in the mononeuclear leucocytes. It seems, therefore, that upon a review of the whole subject that the latter view is more tenable in holding that the fixed tissue cells could not have played any role in the formation of these particular tubercules, but they were made up entirely from the leucocytes, which necessitates a wider view of the genesis of the tubercle and consequently a change of thought in regard to the therapeusis of tuberculosis. This idea of tubercle genesis, so justly represents the views of the writer expressed on a former occasion, that we feel a pardonable pride in repeating, in part, what was then said.

"Pulmonary tuberculosis is, primarily, in a great majority of cases, a local disease, involving but a small portion of one lobe of the lung. This process follows well defined routes. Catarrhal affections of the bronchial membranes, regularly accompanied with superficial denudation of the epithelium, serves as portals for the entrance and implantation of the spores of the bacillus. From this focus they advance through the lymph spaces and lymph channels into and through the blood, and rarely, if ever, along the neuclus surface from the mouth to the air cells."

Birch Hirschfeld, Pathologist in Leipsic University, was enabled, before his late demise, to complete and publish an important contribution to our knowledge of tuberculosis. The aim of the author was to determine beyond reasonable doubt the primary lesion of pulmonary tuberculosis.

After many years of patient toil in laboratory research upon ample autopsy material this learned pathologist believed that he had shown beyond the possibility of doubt, that *the primary lesion* of consumption is an *ordinary tuberculous ulcer occurring in the wall of a medium-sized bronchus*, and this typical bronchial ulcer was plainly contracted from inhaled bacilli. He was further able to demonstrate that in most instances the infection occurred in a branch of the "so-called posterior apical bronchus," whereas, formerly the entire apex was regarded as a predeliction site for

the development of phthisis. The author shows that the posterior apical branch is the area of the least actual resistance; the "dead expanse" of lnng tissue, doubtless because it is in close relation with immoble structures of the vertebreal column, while the apex proper sustains an adequate degree of ventilation of and exchange of gases. Therefore for the want of due expansion and contraction at this point where infection does enter it is certain to be retained.

He goes on to say: "Owing to the abscence of a strong inspiratory current, the tubercle bacilli never reach the air cells, but are deposited in the medium-sized bronchi, usually at the point of ramification into the finer bronchioles. The affected bronchus becomes occluded and the air cells beyond it undergo atelectasis and atrophy." The pathological alterations up to this point, we believe constitutes primary tuberculosis of the lungs, and most cases of consumption begin in this manner; yet so rapid and so manifold are the forms which they assume thereafter, that the actual initial stage of the disease has hitherto escaped recognition. This classical picture might be prolonged from the evolution of the tubercle through the processes of infiltration, caseation, incapsulation or cavation; but suffice it to say that the symptoms complex of the various forms and stages of the disease should be so thoroughly understood by the alert physician that he may be able to diagnose the different gradations as he meets them and apply the therapeutic agent applicable to each stage of the disease. Especially is this the case in the earlier recognition of the disease in its incipiency when there are great and just reasons to believe in a permanent arrest of the disease, and before the patient is hopelessly doomed by destructive lesions caused by the actual softening and liquefaction of degenerated tubercles. Along this line, naturally, two methods suggest themselves in the prevention and cure of the disease. The first aims at the destruction of the germ either before or after they have entered the body. The second is to so modify the soil that they will refuse to grow in it; in other words to prevent or remove the diathesis or predisposition by invigorating the system so that the tissues will remain sterile so far as the growth of the bacilli are concerned, affording them no proper nutriment. The once fertile soil having become sterile, the bacilli present die and are cast off, and new ones, although ingrees is easy, yet fall on stony ground and perish. The greatest success in the treatment of phthisis in modern times has been along these latter lines. The bright hopes for the future shines in the same direction. Then, to cure tuberculosis, it is nescessary: 1st, to restore the physiological functions of the body to a normal condition; 2d, to bring about a higher nutrition; and 3d, to establish immunity. For the accomplishment of these results we consider every case of a tuberculous subject under the following methods of treatment: dietic, hygenic and medicinal. The first two are so old and yet so new, that the mearest tyro, we think, should know all about them in every detail; yet, no questions are so diversified, in regard to treatment of consumption, as diet and hygiene. To say that a patient must have a good generous diet puts the question but mildly. The great importance of the nutrition of the patient is admitted on every hand, and efforts have never been wanting in devising dietaries which should serve the purpose better than any other. The nutritious quality of the food should be kept as the prime object, while its palatable preparation and the patient's relish should not be lost sight of in the broad and comprehensive study of this phase of the subject. The great advantage of combining in one diet all the essential food constituents required by the organism, in addition to comparative ease of digestion, has led naturally to this almost universal employment of milk as an exclusive diet on account of representing, in fact, a true *mixed diet*, in which fats are well represented. Other foods rich in proteids should be allowed, such as eggs and beef, out of which the impoverished cell elements of the tuberculous body draw energising protoplasm; while if we wish to gain in weight fats and carbohydrats must be taken liberally. But I see no cause for making the taking of them a source of discomfort and disgust to the patient, so long as I can accomplish my object in giving food to my patients in a form which they eat with more or less relish. If we judge the improvement of patients' nutrition by gain in weight, I do not remember a single case in my practice who should gain on an exclusive meat and egg diet. But not so with milk; and when a patient could take large quantities, 4 to 6 quarts a day, the gain in weight is remarkable. No artificial food should be used to such an extent that it becomes monotonous and disgusting to the patient. Aversion to fats is the common experience with consumptives. If my patients will not take cod-liver oil or beef fats I insist on plenty of butter or cream or bacon or cold boiled ham He will make a choice of some one of these. A like position is proper with meats and vegetables;

the only care is that the preparatiion of food is good and readily digestable.

The hygienic control of patients should be disciplinary as regards to details; the most important factors being the complete regulation of rest and exercise, and above all, the living as much as possible in the *open air*. This, the most important method of all, is rarely employed to the degree it so richly deserves, and in many instances it is entirely neglected in the belief that it can only be employed at climatic resorts. This presupposes that a climate should be sought which has the greatest number of days of sunshine, and where the air is moderately moist and moderately dry, a place where there is not too sudden change in temperature and wind is not fierce and penetrating, but cool and invigorating in winter time and not too hot nor enervating in summer.

Dr. Osler says that more of these desirable qualities are found at an average altitude of 2,500 feet than anywhere else, such as the "Adirondacks or Asheville, N. C." The patient should be taught that the open air treatment means that at least as many as twelve hours of twenty-four should be spent out of doors, either in walking, riding or sitting. If he is not able to do either of these he must then recline in chairs or lie on cot well covered with woolen or silk wraps, protected from draughts of air, and at night sleep with *windows open*.

The medicinal treatment resolves itself into symptomatic and specific medication.

The consensus of medical opinion and practice of to-day is that, among drugs, the chief place is given to creosote and its derivatives. As regards its action it is still a moot question. Those who believe it to have direct germicidal action on the bacilli in the tubercular lesions, or the power of preventing their growth in healthy tissues surrounding these lesions, are advocates of the larger doses. Those who look upon creosote as valuable chiefly for promoting appetite and digestion and general nutrition consider small or moderate does all sufficient. My own experience has taught me that moderate doses is the best, beginning with 5 drops and gradually increasing to 30 or 40 drops three times daily. This dosage I maintain unless there are signs of gastric disturbance; then I decrease or stop it altogether for a time.

The method of administering creosote is of some importance, especially when considerable doses are to be given for long periods of time. The drug to most people is disagreeable, particularly at first, and every effort should be made to avoid disgusting the patient at the start. It is usually given in mixtures of cod-liver oil, milk or hot water. But undoubtedly to my mind, the best way to give it is in capsules, to be filled by the patient at the time of taking. It should always be highly diluted with a glass of water or milk at the time of taking. If in any case the pure creosote (Morson's) cannot be tolerated, then one of its derivatives, *duotal* or *creosotal*, should be substituted. Five to 10 grains of carbonate guiaiacol or the same number of drops of carbonate of creosote, both in capsules, should be given 3 times daily. I do not use creosote in incipient cases, but in later cases, especially where there is much catarrh of mucus membranes and *mixed infection*. I continue its use until the symptoms have subsided.

Next to cresote stand the iodine compounds, chief of which are idoform, aristol and euphoren. On account of their disturbbing sometimes the digestive functions they should be used in inunctions. On account of its stability and freedom from odor I recommend the use of euphoren, in 10 to 20 per cent ointment well rubbed in twice daily.

Among the many drugs which can be used for building up purposes and restoring the equilibrium of different organs, which deserve special mention are iron, arsenic, phosphorus, digitalis and strychnine.

Whenever and wherever a drug can be used to correct a fault or supply a defect in functions of any organ in the body it is good practice to employ it. We do not mean to suggest the use of all the above-mentioned drugs in the treatment of any case of tuberculosis, for no remedy should be employed except where there is a positive indication for it.

In almost every case of phthisis there is existing anemia, resulting from a decrease in the hemoglobin of the blood as well as a decrease in number and destruction of the blood cells. Here iron and arsenic fill a want that no other remedies can. Blaud's pills modified represent these two minerals in the best possible form.

Contrary to the generally received opinion, it has lately been demonstrated by French physicians (Drs. Robin and Binet) on nearly four hundred patients, that the respiratory exchanges of the gases become greater in phthisical patents than in healthy persons. These results bring out the following facts: "The volume of inspired air increases by 110 per cent. The exhaled carbonic acid per unit weight increases 86 per cent. The total oxygen consumed proportionately to weight 100 per cent." They believe the old name consumption is a good one. They conclude by saying: It

is the consumption produced by the abnormal respiratory action, and by *demineriliization* of the tissues which prepares the ground for bacillary invasion. So when an individual seems to be predisposed to the disease it is not sufficient to remove the bacillus; it is necessary to treat the patient hygienically and therapeutically in such manner as to modify the functional and nutritive trouble upon which the development of the bacillus depends. This will be found in the regenerating properties of iron and arsenic and tonic and stimulating properties of strychine and digitalis. Strychnin should be given from beginning to end of most all cases in 1–40 to 1–20 grain doses three times daily, digitalis only when irregularity or weakness of heart demands it. Cod-liver oil should be given as a food in every case that will tolerate and digest it. Alcohol, as a remedy, needs to be mentioned only to be condemned. In some instances it may do good in small quantities in assisting digestion. But in all my experience and observation of hundreds of patients of other physicians, I have seen few instances where alcohol in any form has been markedly beneficial to the consumptive, from the fact that it has little or no *food* qualities. Now we come to the specific treatment about which there is great controversy.

We said in the outset that the great aim in the treatment of tuberculosis was the production of immunity. And what is immunity? Immunity in its broadest sense means freedom from liability to contract disease. And in tuberculosis it means that condition of the human body in which the specific germ which produced the disease no longer finds suitable soil for its multiplication and growth, hence its deleterious effects upon the tissue elements cease to exist. How shall we then induce immunity? This condition is brought about by the introduction into the human organism of a specific virus or toxin that will so stimulate certain cells or organs that they will in turn produce an antitoxin which will be antidotal to the toxic products of the tubercle bacillus. This toxic agent mostly consist of the germ substance itself, and is not in the nature of an antitoxin produced by the cells of another organism outside the body, the horse for instance. It must be introduced *within the body* and *then* it manufactures a substance which will be antagonistic to the poisonous products of the ptomaines of the bacillus tuberculosis.

Now, then, the question of practical importance is, have we such a substance, and can we safely administer it without any undue reaction which would be dangerous to the patient, and at a time when immunity would be of avail, and before the patient is hopelessly doomed by actual softening, suppurations and exhaustion?

We think that a purified tuberculin such as the Watery Extract of Tubercle Bacilli, manufactured by Von Ruck, meets these indications more fully than any other remedy for which a specifiic action is claimed. Its action is based on eminently scientific principles; for it has been proven over and over again by experiments on animals by eminent clincians the world over, that artificial immunity can occur under the use of a tuberculin. Now, if immunity *consists* in the *capacity* of the organism *to protect* itself from the deleterious effects of pathogenic micro-organism, and the tubercle bacillus *substance itself* is the *essence* of the bacterial germs which *immunize* the system there can be no reasonable basis for doubt that tuberculin preparations administered with due regard as to dosage and reactions, will cure at least 80 per cent of all incipient cases. Trideau, in reviewing his recent work in his sanitarium, claims to have made 75 per cent cures in first stage cases. He uses this remedy in cases where he feels justified in so doing. Von Ruck reports in his latest work of 1900, 225 cases treated in Winyah Sanitarium, 56 per cent recoveries in all the stages of the disease and 92 per cent in first stage cases, all treated with watery extracts.

Charles Denison, of Denver, speaking of this specific treatment in his very latest work, says: "About ten years ago immediately after Koch made known his tuberculin, I commenced the use of it." I soon learned the following facts, three of which we reproduce, as they accord so well with our experience:

1. "That very febrile cases or those wholly unable to exercise are undesirable patients for this form of treatment."

2. "That the dosage and frequency of administration recommended were too severe."

3. "That any increase of intoxication of an alreaay overburdened system, especially in cases of mixed infection was harmful, and that no remedial effect can be expected in tissues not supplied with circulation and are not alive."

This gives the scope of cases in which the remedy is not needful or effectual. Despite charges of failure of this specific method of treatment, made by hasty and indiscriminating critics, it is becoming more and more to be acknowledged by those physicians who are willing to test the matter, that there *is* a special and a specific stimulation of tuberclar living tissue, which is characteristic of a healing process.

Dr. Denison reports 213 cases treated with the different forms of tuberculin and goes on to say: "While of the 94 patients of the combined classes treated with the purified forms of tuberculin (tuberculocidin antiphthiscin T. purificatum) 30 per cent are living and in good condition. Of 45 watery extracts, 28, or 62 per cent, are living in apparent immunity. This is a very good showing for the later refined method of the watery extract. He concludes by saying: I am pleased to have taken part in the conception of this form of tuberculin, the watery extract, which is a substitute for Koch's emulsion—the tuberculin R.—has proved itself the most perfect and satisfactory aid to specific immunization in tuberculosis thus far discovered."

I have been using the remedy nearly two years. I divide my cases into three classes: (1) A. B. and C., representing 1st, 2d and 3d stages of the disease.

My per centage of cures are: A. 100, B. 73, C. 10, average 60 per cent.

DISCUSSION.

Dr. Burroughs.—This paper was entirely at variance with all my experience. I agree with Dr. Weaver in one point: I think that the watery extract of tuberculin is the best preparation that has been offered to the public, and I think its great goodness consists in its extreme weakness. It is the weakest preparation and calculated to do less harm. I would like to ask Dr. Weaver what kind of creosote he used.

Dr. Weaver.—Morson's, the purest form, from the distillation of beechwood chips.

Dr. Borroughs.—That is where you failed to get good results. All wood creosote is full of impurities. Morson puts up two kinds, one from distillation of chips and one from the distillation of tar. The preparation from the distillation of tar can be given in large quantities without any gastric or renal disturbances. I think it is well nigh a specific for tuberculosis.

Dr. Bass.—The question of tuberculosis is a very extensive one. It was said of Alonzo Clark that he had a right to tuberculosis from inheritance, both from his father and mother, who died from it, and history says that he died at a good old age from gout. Are not rheumatism, gout and consumption somewhat similar from a neurotic point of view? In the early symptoms of tuberculosis if we watch for the primary fever and nervous feeling, you will find they come on in that manner. Prof. Mays is a strong believer in the neurotic treatment, and starts with silver and puts silver in the manner of a round on the ladder, up, until he gets to the explosive stage and then lets the silver down and goes up again. He can this time get a few rounds higher on the ladder and he makes the diagram to his class very striking. One case particularly I have in mind where the patient had no tuberculosis in her family but one branch of her family had been addicted to drinking. Her husband died of tuberculosis. He was confined for 18 months perhaps and she cared for him. She had some pharyngel trouble, rapid pulse, temperature 99–100 almost every day for 6 months. I put her on beechwood creosote and she went from 5 drops to 40, 3 times a day. She took 1-16 grain of strychnine every 4 hours for 3 month, ate 6 raw eggs every day, a pint of raw cream, took iron in the form of Blaud's pills and Basham's mixture. Her pharyngitis improved, and she is now a good heathy woman, married and living comfortably. I was in Philadelphia in January and Dr. Mays was pushing the silver nitrate treatment and he had been injecting the solution over the pneumogastric nerve. One of his patients told me that he was not able to earn his living, and that with the exception of hygiene and diet was the only treatment he gave. He is very enthusiastic about nitrate of silver in his recent book. He said he was not prepared to say how it acted except through the nervous system. What effect the pneumogastric nerve had over the lung tissue he was not prepared to explain.

Why Have Not Materia Medica and Therapeutics Advanced More Rapidly? And Some Suggestions for Their Future Development.*

By A. Cheatham, M.D., Durham, N. C.

The tendency of later years has been for the "scientifically inclined members of the profession" to devote their time to other departments of study, but the demands of these branches are such that they can no longer be neglected, except at their own peril.

So long as our main and final object is the "prevention and curing" of disease, everything else in medicine is subordinate to Materia Medica and Therapeutics. The time has come when we should no longer stand back and ask if this or that preparation was originated by "Homeopath," "Allopath," or any other path, but let the remedy be subjected to the test, and let it stand or fall only on its therapeutic value.

*Read before the North Carolina Medical Socieey, at Durham, N. C.

The old and new drugs that go to make up our Materia Medica, should be known to have a definite strength and action. Without a correct Materia Medica how can we hope to build a correct Therapeutics? To whom must we look to get a correct Materia Medica? To the manufacturing chemist? No! The commercial spirit of the age is making itself felt in every department of Science, but no where has it obtained a more complete sway than in Medicine. The medical profession is overrun by the multitude of new substances and combination of substances "evolved out of the activity of the brain of the Pharmaceutical Chemist," and too often reports of "great therapeutical value," all manufactured in the same brain, are put upon the medical profession by the so-called "Manufacturing Chemist," but who are, too often, in reality, "Patent Medicine" establishments, using the unsuspecting physician to promote their business at the expense of suffering humanity.

I have a friend who after completing his course at the Philadelphia School of Pharmacy, took a position far fourteen months with one of the leading manufacturing drug houses of this country. He told me that the physicians did not know the true composition of the "open formula" preparations sent out by that house. Take an open formula prescription to any graduated, experienced and practical druggist of your place, and have him make you the preparation, what will you get? Why, a mixture containing the same drugs? but quite a different mixture.

"There is possibly no man whose reputation can be more easily injured than a practising physician. The doctor's success depends entirely on his reputation for moral rectitude and professional knowledge, and for this reason he should be more than scrupulously careful in the administration of medicine. He may unite the skill of Osler, Pepper and Loomis in diagnosis, and of Burton, Wood and Hare in therapeutics, but it is all prostrate before the enlightened intelligence of some dishonest (drug house) druggist. The substitutor is about the basest production of modern commerce. He has no respect for his own good name; his only interest is in his profits. He robs the dying man because he does not give him that to which he is entitled. He steals from the physician his good name, because he has given a worthless drug. The patient has not improved, and the physician's reputation has suffered in consequence. The man who substitutes in any manner, shape or form can only be held in the eyes of the physician and patient, as the meanest and most comtemptible of sneak-thieves."*

We find ourselves constantly after the druggist for counter-prescribing. We have a right to complain so long as we continue to get our therapeutics from the *Almanac* or the *out-side wrapper* of some ready-made preparation. Dr. Mm. Porter says: "This condition probably could never have grown so bad if the present-day physicians had a better knowledge of the old reliable drugs, and of the resources of the Pharmacopœa and National Formulary in aiding them to prascribe. The average physician at graduation feels that the ground work in pharmacology is insufficient. He is timid about prescribing. Consequently he may tend towards skepticism as to the value of drugs, but he is in especial danger of falling a prey to the new drug faker. Unfortunately the chief source of information upon any new substance is the circular of the interested manufacturer, containing it may be the endorsements of physicians obtained undoubtedly in good faith, but usually coupled with so much that is impossible or unnecessary as to lead to its speedy consignment with disgust to the waste basket.† If this spirit of commercialism continues, the only qualificotion that a druggist will have to be able to read a prescription, and the label on the bottle, and write the direction on the label. If the chief source of information upon new drugs are only obtained through *interested manufacturers*, where are we to get information that can be relied upon, concerning new drugs? Some suggest that the matter is within the power of the *professions of Medicine and Pharmacy* and that an *annual* supplement to the U.S. Pharmacopœia be issued for the purpose of giving reliable information concerning new drugs. Others that a proper censorshid to act as a directing agent protecting the profession from deception, whose duty it should be to dicide as to the therapeutic value, and the ethical character of all, and especially new drugs, and combination of drugs, as well as a host of allied substances offered to the medical profession.

Prof. Rowland of Johns Hopkins University hit upon the right key when he said, "The knowledge we need concerning the nature of the various diseases, and the true means of combatting them, can only be discovered in research laboratories. How many laboratories are there in America for the study of the effects of drugs in health and

*Extract from editorial in Dominion Med. Monthly, Feb., 1897.

†American Medical Quarterly editorial, Sept. 7899.

disease? Where are the physical and biological laboratories for the study of the fundamental laws of life? We see a few miserable structures here and there occupied by a few starving professors, who are nobly striving to do their best with the feeble means at their disposal."*

Dr. H. C. Wood, of Philadeldhia, says: "We want a multitude of scientific workers to study the effects of toxic and non-toxic agents upon all sorts of animals, including man. Every substance must be studied exhaustively in its effect upon the cellular and gross structures of the heart, blood vessels, glands and internal organs, and every tissue of their bodies. Until work of this kind is done on a large scale, and the fundamental laws of therapeutics and toxic action are deducted, our practice must remain to a large degree purely empirical. The public do not seem to be aware that they are neglecting their own interest in neglecting the interest of Medical Science."†

Why soould not the people join with the medical profession, and demand of this Government that an inspector be placed in every medical manufacturing establishment in this country, to see that the drugs used are pure and of officinal strength. Our Government is maintaining inspectors in other departments of manufacturing of less importance, and is spending annually its millions in constructing handsome death dealing machines, why not spend a little for a life preserving plant?

The cost of equipping and maintaining a labratory would be small compared to the cost of equipping and maintaing one of our battle ships. While the Government is fortifying itself against the enemies from without, why not fortify against the enemies within, disease and death?

Some of the leading men of the profession realizing that therapeutics is the life of the medical science, and without therapeutics there could be no science of medicine, assembled at Washington in May 1900, and organized the "American Therapeutic Society". Perhaps this means more for the future advancemeht in therapeutics than anything that has transpired for years. In no department of science is the tendency so strong to seek premature results as therapeutics. The medical profession unfortunately has too many who wish to gain notiroety, rush into print with *crudely acquired, and badly digested facts*, and they are accepted with much deference by many as if they represented the ripest results of the investigation of an expert. One of the saddest comments on the advance of therapeutics of to-day, is that so many of us are ready to givn to any substance which comes to us, not only a hearing, but displace some well known, and efficient drug with an unknown drug. Although many of the most successful therapeutical measures of to-day are still empirical, experience must continue to chop out the right-of-way, but Science only can build the substantial road-way upon which the successful therapeutics of the future must travel.

The fundamental requirements of a scientific therapeutics are reliable drugs of a definate action; correct diagnosis, and a strict attention to the action of the drugs abministered, and the ultimate success will depend upon an intelligent selection and application of drugs.

*Merck's Archives, January, 1900.

†American-Medical Surgical Bulletin, Ed. May, 1898.

Amputatton of the Arm Together with the Clavicle and Scapula for Malignant Growth.*

By R. L. Payne, M. D., Visiting Surgeon St. Vincent's Hospital, Norfolk, Va.

The brilliant achievements of the Abdominal Surgeon have so dazzled our senses that for a time the discussion of all other surgical cases have been lacking in interest for the genaral profession and there is great danger that other and equally important operative procedures may be neglected in our studies.

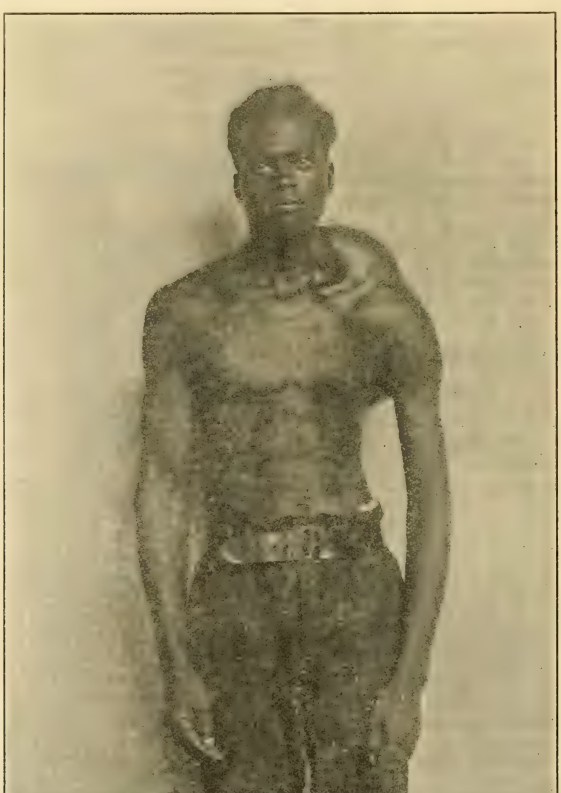
I desire, therefore, to briefly call your attention to the operation for removal of the upper extremity, including all or part of the clavicle together with the whole of the scapula for malignant growth. There are several recorded cases in which the whole of the scapula, together with the arm, have been torn from the body by accident, resulting in recovery, but it was not till 1808 that the celebrated operation of Ralph Cuming for removal of the clavicle, scapula and arm for gunshot wound was done with resulting recovery of the patient. This was a brilliant operation, but no other case is recorded till in 1836 Dr. Dixi Crosby, an American Surgeon, at Plymouth, N. H., repeated the operation with success, and this time the operation was done for a large malignant growth, measuring 37 inches in circumference.

Encouraged, no doubt, by the happy result in this case, Dr. Amos Twitchell, of Keene, N. H., two years later repeated the operation with success, and the operation

*Read before the North Carolina Medical Society, at Durham, N. C.

of Mussy, of Hanover, N.H., done in 1837 for the removal of the entire scapula for malignant growth, subsequent to an amputation at the shoulder joint, has been much quoted as an instance of success attending repeated operations for malignant disease, the patient being alive and free from recurrence thirty years after the operation.

Up to the year 1881, 29 operations had been done for various indications, with a mortality of 38%. During the next six years 28 operations were done, and the influence of antisepsis is at once apparent in the lowered mortality, 18%. In 1887, Paul Berger, of Paris, published a report of his case done in 1882, together with a complete history of all previous operations and laying down definite and valuable rules to be observed in the performance of the operation and though he advised no procedure which had not been employed by earlier operators his instructions were so explicit as to give a great impetus to this operation, so that since this monograph appeared 125 operations have been done for various indications with a mortality of 10.4%. Certainly a very satisfactory percentage of recoveries when the magnitude of the operation, the hopeless character of the troubles for which it has generally been done and the poor class of subjects demanding the operation is considered.



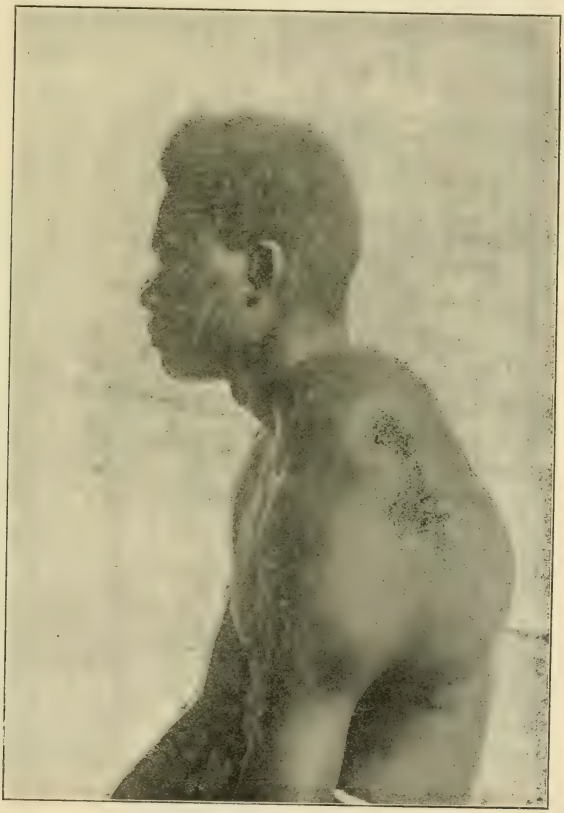
Separating these statistics, we find that 103 times the scapula, arm and part or all of the clavicle have been removed for malignant growth of either the humerus or scapula with a mortality of only 8%, and my own case reported in this paper reduces the mortality still lower, 7 9-13%.

The indications for this operation are va-

rious, but the purpose of this paper is to consider it only with reference to malignant growths. Most of the operations that are recorded have been done for sarcoma, springing from the periosteum or medulla in the upper part of the humerus or from the scapula and so involving the surrounding parts as to preclude the removal of the growth without the sacrifice of the arm.

It has been done several times for carcinoma involving the shoulder joint, and Buchanan, of Pittsburg, to whose valuable paper I am indebted for the statistics of this operation advocates the removal of the scapula and a part or all of the clavicle in all cases of malignant disease requiring amputation at the shoulder.

I fully agree with his conclusions, and would even go further and say that any amputation for malignant disease above the elbow joint had best include the scapula and part of the clavicle, because an arm amputated above the elbow is of but little service at best, and when we recall how frequently a recurrence occurs in the shoulder or scapula after amputation of the arm for malignant growth, and how much more thoroughly the parts are removed, especially in the axilla and under the clavicle in this amputation we cannot fail to see such complete operation very much lessens the chances of recurrence.



Take into consideration the low mortality which has attended the removal of the scapula and clavicle with the arm since the adoption of the modern surgical technique, and it seems to me there is nothing to favor the less radical procedure.

The following history of a case which

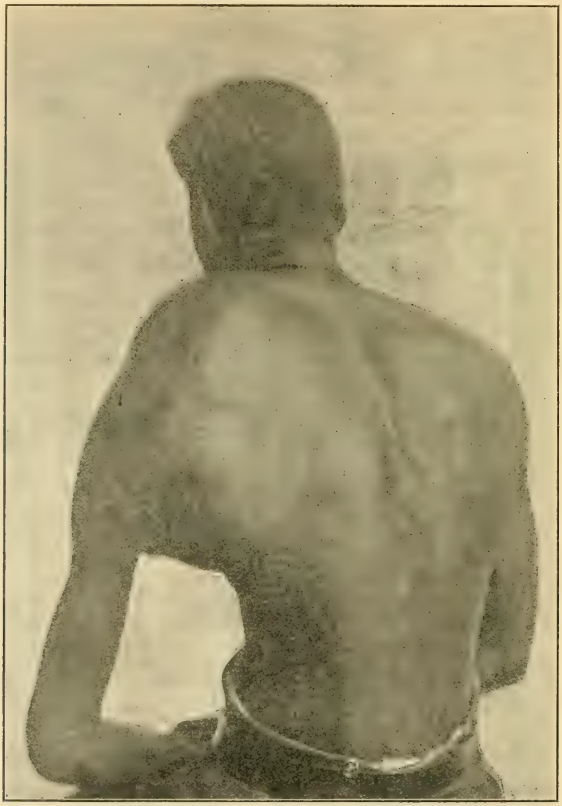
has recently been under my care, sets forth the method of operation:

April 20, 1901—Henry Gatling, col'd, aet 24, of Gates Co., N. C., came into my service at St. Vincent's Hospital, suffering with a large tumor of the left shoulder. The growth involved the whole of the left scapula, the top of the shoulder, extending well up on the neck, and the axilla was pressed downward several inches by the mass. The humerus was apparently dislocated downward, the left hand hanging 3 inches lower than the right.

The acromial end of the clavicle was involved. The greatest circumference of the tumor was 33 inches. On the right side the measurement through the axilla and around the shoulder joint was 17 inches, while on the diseased side the same measurement was 30 inches. The growth had not followed injury and was of two year's duration. The general condition of the man was good, but his health was beginning to suffer and the left arm was practically useless.

Considering the fair general condition of the patient and his absolutely hopeless state without operation, I laid all the facts before him and he elected operation.

After several days devoted to preparation of the part and the system, the following operation was done:



An incision was made over the outer two-thirds of the clavicle through all structures down to the bone. The periosteum was now pushed aside and the middle third of the bone exsected with the chain saw. An attempt was now made to locate the subclavian vessels, but owing to the nature of the growth all anatomical relations were

destroyed, and after losing some time in fruitless search, an incision was carried, from the middle of the one already made, directly downward to the lower axillary border dividing the pectoral muscles and exposing the axillary vessels which were now readily Bared and followed up to the desired point of ligation. The subclavian vein was now ligated in two places and divided between the ligatures. The subscapular surface until the tumor was exposed. Next the omo-hyoid muscle was divided, the tumor separated from the neck and the trapezius, the greater and lesser rhemboid muscles and the serratus magnus were cut in turn. The fingers were run down under the muscles and they were caught on the tumor side with heavy pedicle clamps before being divided. The bleeding was very free but was controlled as far

clavian artery was next ligated and divided in the same way. The incision was now carried from the lower axillary border backward across the arm at the lower level of the axilla to the border of the scapula. The incision over the line of the clavicle was next carried over the shoulder and down along the border of the scapula to the lower angle meeting the first incision. A large flap of skin was then dissected up from the as possible by pressure forceps as the vessels were divided. The pedicle clamps I thought of great service in lessening hemorrhage from the tumor side of the field of operation.

The brachial plexus, which had been uncut to delay the shock attending its division as long as possible, was now divided with a sharp knife and the remaining attachments of the parts severed with a few strokes

of the knife. The sternal end of the clavicle was now dissected out. All suspicious tissue was dissected from the ribs, hemorrhage carefully arrested and after several drains were brought through the large posterior flap, the wound was carefully sutured with silk worm gut, a liberal sterile dressing applied and the patient put to bed. The hemorrhage was abundant in spite of the primary ligation of the subclavian, every capillary feeding the large growth being dilated and at one time it was thought necessary to transfuse the patient with normal salt solution, a quart being infused in a vein at the bend of the elbow, and in 30 minutes a like quantity was administered with the happiest results.

The progress of the case was uneventful, a slight primary wound fever occurring on the second day with a temperature of 101 deg. This subsided during the night and there was no further rise of temperature. The large wound healed by first intention, and apart from a small slough at one point where the flap was puckered and did not lie down very smoothly, there was nothing worthy of note.

In doing this operation you will note in the main the rules of Berger have been followed, but his operation is designed for typical cases, and in this particular case the large growth had destroyed all anatomical relations and even after the resection of the clavicle it was impossible to locate the subclavian vessels without loss of too much time, but by carrying the incision downwards to the axilla, dividing the pectorals and exposing the axillary vessels the subsequent ligation of the subclavian vessels was rendered very simple. In any future operation of similar nature I should simply cut through the clavicle and at once extend the incision to the axilla and through the pectorals as being the simplest procedure possible and that saving most time.

The macroscopic appearance of the tumor mass was largely that of mucoid and colloid degeneration. All of the scapula was destroyed except a small bit of bone at the angle though scattered portions of the mass had a gritty feel to the fingers. The acromian process showed no remaining bone structure, but the cartilage covering the glenoid cavity was perfectly preserved and the capsular ligament was intact. The dislocation of the head of the humerus was due to a large synovial accumulation, the head of the humerus and the cartilage of the glenoid fossa being separated about three inches. The weight of the tumor after separation of the arm and all other tissues was 11½ pounds.

Below I append the report of Dr Chas. Grandy, the Pathologist to the Hospital:

DR. GRANDY'S REPORT.

From the large tumor of the shoulder four specimines were taken for microscopic examination. These were taken to represent the various macroscopc parts of the mass, which as a whole showed much gelatinous material, and which had forced its way into the muscles and absorbed them. One piece was taken from the neighborhood of the scapula and contained spicules of bone. The other shows gelatinous material held between bands of tissue.

There was no fluid in the mass though the gelatinous material gave distinct fluctuation at places. The piece of tissue taken from near the scapula shows a sarcoma composed of spindle cells with no distinct arrangement. These however seem to be tending to change into the spindle variety. In another specimen from nearer the periphery of the tumor the cells are of a different character and show a well marked arrangement into bundles or tubes. The cells here are of the large round variety with large nuclei and are arranged in tubes around a blood vessel, forming its wall. These different masses are distinctly separated from one another. Here the tumor resembles a carcinoma, but can be distinguished by the arrangement of the cells around the vessels (forming the walls of these) and by their tendency to take a spindle shape which is shown in places. There is marked degeneration shown throughout the tumor. This is colloid or mucoid, looking more like one in some places and again more resembling the other. Where the tumor is of the tubular type this degeneration often separates the tubes and then finally involves and destroys them.

The tumor seems to have sprung from the scapula, which it destroyed, and here is of the ordinary spindle cell variety. Later the blood vessels seem to have become involved and to have proliferated, forming an angio-sarcoma.

DISCUSSION.

Dr. Royster.—Dr. Payne's description of an operation is so clear a wayfaring man though a doctor need not err therein. I do not know that I have ever heard the operation described so clearly as Dr. Payne has done. I have been particularly interested in this subject. There is a distinct field for this operation, and it should be attempted by one able to perform it with as much sense of security as in that for malignant disease of the breast. The expedient which Dr. Payne used for getting the subclavian artery is a most commendable one. I wish to say that I regard the description of the operation as exceedingly clear.

Etiology and Treatment of Menorrhagia and Metrorrhagia.*

By Dr. W. W. McKenzie, Salisbury, N.C.

Menorrhagia is the term used to designate an excessive loss of blood at the menstrual period. Metrorrhagia is the term used to designate a loss of blood from the uterus at other times without any reference to periodicity. Time was when these two subjects were a long way apart, but it is now perceived that all red fluxes from the uterus are essentially hemorrhages, and all akin. When we meet with a metrorrhagia which begins in an inter-menstrual period, continues with increased volume through a menstrual period, and so runs on for weeks, we preceive but very little difference between the two affections; or, if we encounter a case of sharp menorrhagia which each month lingers longer through the inter-menstrual period, to become at last an unbroken flow, we must admit that our classification is artificial and a matter of mere words" (Milliken)

The cause of Menorrhagia and Mctorrhagia are both Constitutional and Local.

Abnormal changes in the blood and condition of the system known to have debilitating tendency are the most prominent. As anemia in all forms we have a relatively great amount of water in the blood, and a relatively diminished amount of albuminoid substances, and diminished coagulability. Chlorosis in this regard as in many others, stands apart from the anemia, for it tends to scanty flow if any.

2. In Plethora the increased flow is due rather to high arterial tension than to a morbid condition of the blood.

3. In Malaria poisoning we have the tendency to bleeding well marked, not only in the uterus, but also in the bladder rectum and nose.

4. "In the specific infectious diseases we have reason to believe that hemorrhage is often excessive by a combination of inpoverished blood, altered blood vessels, and the debility of an organism that is too busy with the disease to make repairs in the uterus" (Reed)

5. From any form of debility, menstruation is apt to run into excessive hemorrhage from inability to promptly repair the endometrium.

6. In purpuric conditions we have a strong tendency toward menorrhagia, for in this disease the blood is altered in such wise that it has a manifest tendency to transudation, and a loss of the normal coagulability. Menstruation opens the door, and the flow is excessive.

Loeal Diseases above the Pelvis Causiug Menorrhagia.

1. Violent emotion has often been known to increase the menstrual flow even to the danger point. We are obliged to assume that it causes vaso-motor paralysis. I have in my mind now a woman while menstruating received the sad intelligence that her husband, who was an engineer, was killed, and at once the flow became so profuse that I was afraid she would bleed to death before I could relieve her.

2. "Cardiac diseases with venous stasis, extravisation is invited, stagnant blood dammed back in the veins by an inefficient heart, seeks a place of least resistance, even in the male patient. In the female the place is indicated plainly once a month."—Milliken.

3. Pulmonary disease may run such a course as to obstruct the pulmonary circulation early; thus wearing out the right heart, and leading to venous stasis. Ordinarily the early course of the disease is toward amenorrhea, or scanty menstruation, and the blood is rich in the coagulating principle.

4. In hepatic disease the return of blood from the uterus is impeded, and there exists in jaundice the hemorrhagic tendency which is the plague of the surgeons.

5. In splenic diseases, also, there is some obscure alteration of blood or blood vessels disposing to hemorrhage as in uremia.

All of these causes of menorrhagia are rare. In a number of abdominal tumors we shall find a great number of cases of menorrhagia due to pressure of the great venous avenues of return of blood, and to the perturbing influence of pressure on the uterus. Yet the commonest cause of menorrhagia after all is the fæcal tumor so often present in the female patient. It like any other abdominal tumor of its size operates viciously by compressing venous trunks; its pressure upon the uterus, and directly irritates the organ; it is liable, through the sympathetic system, to irritate the nervous apparatus of the uterus and increase its arterial supply; by its downward pressure it aggravates every flexion and version; it slowly establishes a condition of stercora menia and hydramia; it breeds a tympanitic tumor in addition to the solid fæcal mass, and thus still more increases pressure. But for the etiology of menorrhagia, we look more to the bleeding organ itself, and its neighbors in the pelvis. The uterus and tubes are anatomically continuous, and virtually inseparable by dissection. These

organs and the ovaries have a common nervous supply. The whole trio are fed by only two pairs of arteries and but few veins. It is therefore inherently probable, and it is clinically proved, that irritation or inflammation of one of these organs must lead to an exhalted function of the other two. Passing to the uterus itself, we note that one of the most common causes of menorrhagia may be found in the subinvolution of the uterus after abortion. Sub-involution may also occur after delivery at full term, especially if it is not followed by lactation. In the condition known as areolar hyperplasia, sometimes reckoned a true chronic corporeal metretis, we have a flabby atonic state of the uterus, with enough inflammation to determine much blood to the uterus, and to limit its power of repair after the menstrual wreck. Inflammation involving the endometrium tends to produce menorrhagia, and this tendency is especially well marked in the cases where large granulations are produced on the interior surface. Healed lacerations of the cervix and deep ulceration at the same site sometimes seem to be starting points for irritation that disposes to an increase of menstrual blood. In malposition of the uterus we have often the greatest irritation, leading to increased blood supply. In some of the malpositions the veins of the broad ligament become varicose from distortion, and long continued pressure, the blood returning from the small vessels of the endometrium passes into the uterine sinuses, and thence towards the heart by way of the veins in the panpineform plexus, and it is evident that any limitation of the carrying power of the veins of this plexus, will produce some degree of stasis in the uterus. Uterine tumors also act in this double manner to cause menorrhagia; they vastly increase the normal irritation of the uterus, and they act in a mechanical manner by a pressure or by dragging to block the veins of the broad ligament. Subperitoneal tumors do less harm than those which lie in the wall of, or under the endometrium. After incomplete abortion where some portion of placental tissue remains rooted in the endometrium, the menstrual flow is sometimes enormous.

A woman was sent to me by another physician from another town in this State, with a history of four or five miscarriages, the flow almost continuous from one abortion to the other, with frequent violent flooding attacks—had lost 35 pounds in weight; all this occurring within a space of seven months (during the year 1899). I at once curretted this patient, removing a great amount of placental tissue. After this I gave her a uterine douche daily for ten days of a 1 to 6,000 bichloride solution, after which the flow ceased, her temperature went down from 105 deg. F. to normal. She regained her health entirely, and is now seven months-pregnant. In addition to the above treatment, I gave her tonics (Fellows Syrup of Hypophosphites) Iron and Cod Liver Oil.

Malignant diseases of the uterus often leads to menorrhagia at an early age, and at any age. Reineck, and others have, of late years developed the fact that in some cases of menorrhagia, the uterine arteries are sclerosed, prematurely old, prominent and incapable of contraction. They carry a maximum of blood, and necessarily tend to menorrhagia.

A few days ago I was called to see a woman, aged 30 years, who was having a profuse hemorrhage from the uterus. It did not last very long, and stopped of its own accord. She told me that she was operated on by a surgeon in Richmond, Va., several months ago—he removing her ovaries, tubes and amputating the uterus. She has this menorrhagia every two or three weeks regularly. I can only account for this menorrhagia in this way: Possibly a part of the cervix was not removed, and the hemorrhage is due to that. I mention this case as it is a very singular one.

TREATMENT.

The treatment for menorrhagia is first to remove the cause. If it be due to plethora the tendency is to automatic palliation, and later the volume of blood may be diminished by purgatives, exercise, and restricted diet. In all forms of hydræmia the treatment must be toward restoring to the blood its neutrient principles, and especially its saving power of coagulation. The bowels should be kept open by a mild purgative; the woman should lie down; her feet should be kept warm day and night. In urgent cases the tampon should be applied in such a manner as to correct any malposition of uterus, and it should make strong pressure on the cervical tissues. No styptic substance should be used, since it is not the object to coagulate the blood in the vagina. Some antiseptic substance should be used on the tampon like boric acid, which is only slightly toxic, is inoffensive, and has a slight acid reaction to avoid neutralizing the normal acid of the vagina. In extreme emergencies, the uterus might well be flushed with hot water at a temperature of 110 or 115 under asepsis, and with free return of fluid secured. The emergency passed, we should endeavor to improve general nutrition, and to enrich the blood by giving iron alternated with arsenic.

Menorrhagia complicating the acute infectious diseases is seldom severe or long continued. In the exanthemata it usually declines with the development of the cutaneous eruption. In scorbutus the treatment is dietetic. In malaria treatment for the toxemia will accomplish brilliant results even in an emergency.

The chief danger in menorrhagia is that the physician will seek for a cause in the pelvic organs, and overlook some profound diseases or dyscrasia. When this effect is due to pulmonary and cardiac diseases the only treatment necessary is directed to a relief of venous stasis. And the treatment of abdominal tumors is a matter of surgery. The treatment of fæcal tumors is of the greatest importance. They should be swept out by repeated doses of purgatives, and in severe cases it may be necessary to aid purgatives by enemata. When the bowel is well emptied, it is important to keep it empty to the physiological limit.

It has long been taught that a sharp purgative preferably murcurial given a few days before menstruation has a distinct curative effect in some cases. Supposing the bowels to be in good order, we may resort to ergot and its allies. With the hope of permanently contracting the fibers of the uterus, and the muscular fibers of uterine and ovarian arteries. This treatment is of no avail in emergency, but under ordinary circumstances should be maintained for one or two months at least. Excellent results will sometimes be obtained by giving Iodide of Potassium for ten or twelve days previous to the menstral period. The dose should rise as rapidly as tolerance will permit from ten to forty grains per day, and be there maintained until the second day of menstruation. In rare cases supposed to be caused by ovarian irritation, the bromides will diminish the flow. They certainly tend, in the main to diminish the flow, and as Ernst, of Vienna, has pointed out to increase the interval between the menstrual period. Electricity has doubtless a place in the treatment of this affection. The positive pole in the uterus, carrying a galvanic current has an admitted haemostatic effect, the current being cautiously raised to from 30 to 50 milliampeares. Later in the absence of hemorrhage or inflammation the current may be increased. In emergencies the current used in the interior for haemostatis may be raised to 150, and it may be understood that it is then positively cauterant. Strict antiseptic technique must accompany this treatment.—(Goelet New York Medical Record—March 29th 1891).

Desperate cases of menorrhagia may require the induction of the menpoause by the aid of a surgeon. Metrorrhagia in young married women should excite suspicion of incomplete abortion. In such cases curretage should be done at once, with every antiseptic precaution. While if not followed by strict antiseptic measures, it is a worthless and dangerous expedient. The surgeon should prepare his hands by first scrubbing well with soap and water, and then passing them through the permanganate solution and oxalic solution, and finally bichloride 1 to 4000.

Instruments should be sterilized. The vagina should be thoroughly cleansed by hot water and bichloride solution. In mature life metrorrhagia much more than menorrhagia should excite suspicion of uterine cancer. In metrorrhagia interutrine application will work a cure in a larger proportion of cases than in menorrhagia. The cervix being sufficieutly dialated, iodine in solution, phenol pure dialuted or combined with iodine, creosote in solution, or tannic acid, or if you have neither of these you should use vinegar. This may be carried up to treat the entire endometrium with the hope of reducing succulence or atony, or reducing inflammation. The solution of these, and other styptics and cauterant substances is often made in glycerine, and that solvent by virtue of its great avidity for water is able to deplete the endometrial tissue and new growths. When due to Polypi or other growths of course the treatment is for the removal of the same. I was treating a case of metrorrhagia for 5 or 6 months during the year 1897 before I ascertained the cause. I suspected the cause, but the patient would not submit to a vaginal examination until the hemorrhage became so very alarming she at last consented. Upon examination I found a very large polypus, which was removed. This put an end to the hemorrhage immediately.

The Pronated Foot.*

By Michael Hoke, M. D., Atlanta, Ga.

From a mechanical point of view, the foot is the most splendid piece of anatomical structure in the human body, in spite of the fact that the dress customs of civilization have shown little regard for its needs, if its strength is to be considered a desirable thing. The relation of its bones, its ligamentous braces, its muscular suspension,

*Read before the North Carolina Medical Society, at Durham, N. C.

together make up a series of flexible, elastic arches, which, for precision of design, can find no counterpart in nature.

Its function is to support the body weight, and as a lever, to make locomotion a movement of poise, activity and grace, free from all pain.

Its attitudes, its ranges of motion controlled by and balanced by its muscles and the muscles of the leg, the fashion of the covering, the manner of its use. are all factors in the preservation of its integrity, as an efficient and lastingly useful piece of mechanism.

Its component parts must be in a normal condition, the muscular power must be sufficient, and it must be properly used if it is to be servicable.

If any of these conditions are lacking,the foot is no longer effective as a lever, its spring is lost, the muscles which control its balance act in a faulty manner, no longer distribute the body weight so that the foot as a unit bears it; the attitude of passive support is assumed, it yields, the foot is weakened; pain, awkwardness and disability follow.

The types of non-deformed but structurally weakened feet are many, indeed each foot has its own structural individuality; thus nearly all cases falling under a type of defect, present individual problems for solution. But each type having its own definite dynamical forces which produces the defect, has its own general principles to be followed as a basis for treatment intended to correct the defect and relieve the symptoms.

I have elected to speak of the pronated foot.

It is the most common type of the weakened non-deformed foot producing pain that exists without change in the bones of the tarsus and metatarsus. The pronating force is active in the production of flat-feet, difficult there to overcome, hence of interest. It presents, too, one of the most interesting problems in that part of orthopedic surgery concerned with the application of apparatus for the correction of a faulty anatomical position attended with disability. I have selected it also because this vicious position plays an important and sometimes dramatic part in the relief of symptoms in feet, ankles, knees and hips, that having passed through a severe acute or chronic arthritis of any nature are painful, not from disease still existant, but from the fact that the relation of the bones forming the joints has been so altered that the leg transmits the body weight and the feet sustain it in a manner productive of joint strain.

I shall confine myself as briefly and strictly as possible to only those anatomical dynamical and mechanical principles concerned in permitting and correcting the trouble.

The clinical importance will be shown by a report of a few typical cases. It is necessary first to picture the best type of foot. The position of strength is that position in which the foot acts most effectively as a lever; the position of weakness, whether unconsciously assumed or forced on the foot by some of the many impositions possible, is that position in which the foot as an anatomical lever is placed at a disadvantage to do its work. All of these attitudes are simply expressions of how the body weight is borne.

Von Myers' rule formulates the accepted ideas as to the proper relation in position of the foot to the legs: "The line of the crest of the tibia if prolonged downward should pass over the dorsum of the foot to the cleft between the second and third toes, the inner border of the great toe, the inner malleolus and the inner condyle of the femur being in the same plane."

This agrees with the best type in nature.

The foot of an infant shows unimpaired muscular power in the movement of all the toes. The great toe can be voluntarily adducted, the fifth abducted; all can be markedly flexed. There is a space between the great and second toe. The toes are straight. The infant adducts frequently the great toe, demonstrating great freedom of its motion. The line of the extremities of the toes forms a curve with the greatest point of convexity at the end of the second toe. The line of the heads of the metatarsals present the same curve. The line of the inner edge of the foot is apparently straight. Though small, is a perfect minature of the strong foot, its toes straight, its motions free. Young children in beginning to walk always place the feet with their axes parallel or with a slight toeing in.

The inner edge of adult feet that have not worn shoes nearly always appear straight; the great metatarsal is comparatively greatly developed; the prehensile strength increasing with age up to a certain limit.

Barbaric models and Egyptian sculptures, types of the bare-footed and sandal-wearing people are characterized by the parallel relation of the axes of the feet in the standing position, by the straight inner edge of the foot and straight toes. The early Indian, Burmese and Egyptian Art, show this to be true, and the classical type of sculptures, represent the line of the inner edge of the foot as always straight with an

extremely small angle of divergence of the axes of the feet in the standing position. This is true of the Greek and Roman Art.

Individuals who have never worn shoes walk with the feet directed almost straight in front. The Moccasin-wearing and barefooted races of to-day with whom foot activity plays an important part in obtaining a livelihood, either slightly toe in or walk straight. The muscles of the front part of the foot are strongly developed. If the gait of an athlete is observed it is seen that the feet are advanced in a straight line or with a very slight angle of divergence. It is interesting here to note that the Talipes equinus deformity with the front part of the foot adducted, is the strong type. Individuals possessing this deformity move actively though awkwardly. Contrast this with the slow, halting, rolling, weak gait of the valgus type of deformity with the foot abducted. As shown then by the barefooted and sandal-wearing races of antiquity and to-day, by those who are active with strong muscles in the legs and intact feet, the position of strength is with the feet parallel, that is, with the front part of the foot adducted, the inner edge of the foot straight, apparently with great prehensile strength. I wish you to bear this in mind, it has its clinical significance and is to be contrasted with the weakened position to be described. The reasons that this supinated position is the position of strength, are as follows:

The foot has two anterior posterior arches, an inner and an outer one. They are distinctly opposite in character of construction and hence in function. The outer one is composed practically of only two bones, the os calcis and cuboid closely bound to one another with little play of motion between them at their articulation. The metatarsal of the fifth enters into the formation of this arch with the foot in the non-weight bearing position, but must be excluded from it in the weight bearing position, for then throughout its whole length it rests upon the ground. This arch is short, compactly built and always rigid. The inner arch, twice as long, with five bones entering into its formation, oscalcis, astragalus, scaphoid, cuneiform and first metatarsal with several muscles attached to it, flexible, possessing a wide range of motion compared to the outer, is constructed not for passive weight bearing, but to sustain a great and sudden shock, without jar, to yield slightly and then rebound to its former position in the final spring given to the completion of the step. It is this arch and its attached muscles that make the gait active and springy. The outer arch is built then to stand passive weight bearing all the time as in standing and very seldom does it ever yield. The inner arch should bear the weight only momentarily in the completion of the step in walking, and quickly shift the body weight outwards to be borne again by the other arch as soon as the foot is placed to the ground. This can be demonstrated: Make yourself conscious of pressure on the sole of the foot in standing with the foot in the supinated position axes parallel, front part of the foot adducted. You feel the pressure under the heel and outer portion of the foot and beneath the heads of the fifth, fourth, third, and to a lesser extent the second metatarsal. You are conscious in this position of very little pressure under the head of the great metatarsal. It is not felt there to any extent until the heel is raised in taking a step. More convincing is to place an individual on a glass table in the standing position with the foot in the strong portion, supinated as before described, the axes parallel so that Von Meyer's line may be drawn. Then the dead white area of pressure, if you look at the under surface of the foot, through the glass, is seen to extend over the heel and from the fifth metatarsal into the second as above mentioned. This is the strong position for when it is assumed the body weight is borne by the strong unflexible, unyielding outer arch, the inner arch bearing very little of it.

When on the contrary the weight is borne on the inner arch, sufficiently to tire out the tibiales, flexors, and adductors of the great toe it yields from this passive support to which it is not adapted in structure, its ligaments become stretched and the excessively pronated foot with its train of symptoms and lameness results.

This vicious position is the attitude in which, in the habitual standing position the foot rolls over inward instead of being supinated the inner edge of the foot shows a reverse curve with its convexity inward instead of a straight line or slight curve with its convexity outward, the front part of the foot is abducted, and the outer edge of the foot rolls up, the front part of the foot being rotated inward as well as abducted. The line drawn through the crest of the tibia and over the dorsum of the foot representing the direction of action of the body weight, passes off the inner arch of the foot at the astragalo-scaphoid articulation instead of at the cleft between the second and third toes. The dead white area of pressure seen from beneath the sole of the foot through the glass plate shifts inward until the most decided points of pressure are beneath the heel and the head

of the great metatarsal. This is the result of the body weight being supported by the weak inner arch, applied at its weakest portion, the astragalo-scaphoid articulation. The inner arch is not constructed for this kind of strain and it yields with pain. Always, even in strong feet in standing and walking there is a slight downward and inward yielding of the inner arch which may be called physiological pronation. Its physiological limits can not be determined in degrees for it varies in the two feet of an individual, still more so in different individuals. The pronation with symptoms is the same motion carried further until it produces strain, the same in kind, but excessive in degree.

Lovett has analyzed the movement of the bones in the pronated attitude by a study of 41 X-ray plates of painful pronated feet. Results of his studies may be summed up as follows:

1. The appearance of the feet is as represented in the paragraph.

2. The foot as a whole, rotates beneath the astragalus into the position of valgus.

3. The astragalus is rotated inward on a vertical axis so that its head moved inward and backward, its body outward and forward. There is at the same time plantar flexion of the astragalus by which its head sinks into the sole. This is the key note of the position.

4. There is some outward movement of the cuboid.

5. The front part of the foot is abducted, moving out-ward, the tendency being for the foot to break open outward (if I may use the term) at the astragalo-scaphoid articulation as the hinge of motion.

6. Anterior to the astragalo-scaphoid articulation there is no change in the relation of the bones, the whole front part of the foot moving enmasse.

7. The oscalcis rotates in a valgus position.

The detailed mechanical and anatomical explanation of the strong portion and of excessive pronation is best seen by examination of a skeleton. Consider the body weight to be a force acting downward in the direction of the axis of the shaft of the tibia; it is opposed by an equal force acting oppositely upward in the direction of the shaft of the tibia. The same is true with the foot in regard to the direction of the body weight forces acting through the axes of the small bones of the tarsus and along the shafts of the metatarsal bones. The strength or weakness of the foot is determined by the movement permitted the astragalus.

The astragalus has no muscular attachments, it serves simply to transmit the force of the body weight from the end of the tibia to the foot, splitting it up into a number of components, some passing behind, some forward.

In the strong position, the supinated position above described, as shown by Golobiewski, the astragalus is tilted a little downward at its outer border so that most of the body weight through it is transmitted directly to the oscalcis, thus the force of the body weight passes backward to the tuberosity of the calcis to the ground and from the calcis in front to the cuboid, and from thence to the fifth and fourth metatarsal, the second and third metatarsal receiving their share of the weight through the head of the calcis to the outer end of the saphoid to the middle cuneiform and thence to their own shafts. Thus very little weight is left in the standing position to be transmitted to the inner arch. Note here that there is no planter flexion or inward rotation of the astragalus as seen in the pronated foot, and that from the relation of the bones in the inner arch to one another of the astragalus, it is not a difficult thing for the flexors of the great toe, the small toes, and the tibiales, to bear what weight may be transmitted to the internal arch in this strong position. The result of that little weight being the physiological degree of pronation recognized as normal. If on the contrary the front part of the foot is by habit held in the abducted position so that Meyers line passes off the inner arch at the astragalo-scaphoid point, the body weight being applied there as this foot indicates the tibiales and the other muscles attached to the inner arch, becomes tired and the astragalus is allowed to rotate inwards. Then most of the body weight is applied to the inner arch; this is the pronating force. The astragalus splits it up into two components, one of these acts downward, it falls chiefly upon the inner half of the oscalcis and the sustentaculum tali. The only direct opposition it has is from the tendons of the muscle, which passes beneath the sustentaculum tali, use it as fulcum for their action, lifting up the sustentaculum tali and preventing the calcis from rotating in a valgus position so long as the toe of these muscles is normal. If these muscles are strong and the foot is used in the mechanically strong attitude supination they prevent pronation at this point from being greater than the physiological degree, but if conversely fromthe assumption of the disadvantageous position with the greater part of the body weight, thrown on the inner arch is so greatly increased that they are not strong enough to oppose it;

they play out, the weight falls upon the ligaments at this point, then pain begins there and that part breaks down.

The other component acts downward, forward and inward, in the direction of the axis of the astragalus, from behind, forward and is applied at the inner end of the medio-tarsal joint at the astragalo-scaphoid articulation anterior to the point of support of the astragalus by the oscalcis beneath. This then must be opposed by structures anterior to the end of the astragalus.

Much more flexion is possible than adduction in the normal foot, consequently to permit no more than the physiological limit of pronation the foot must depend chiefly upon the flexors of the great and small toes. The reason why flexion of the great metatarsal in the supinated position overcomes the inward yielding thus preventing excessive pronation, is due to a certain anatomical bony land marks, of whose importance the anatomical books do not speak, to the relative position of the small tuberosity on the posterior end of the great metatarsal to the tuberosity of the internal cuneiform, its whole lower border, and this tuberosity to that of the scaphoid. The tuberosity of the great metatarsal faces downward, the tuberous border of the internal cuneiform faces downward at its articulation, with the great metatarsal then inclined upward and inward. The tuberosity of the scaphoid faces inward, so that when the great metatarsal is flexed by its muscles to the thrust of its little tuberosity by the time its effect is transmitted through the intenal cuneiform and scaphoid against the astragalus is not to lift the latter upward but upward, backward and outward, in direct opposition to the direction of the pronating force "X".

It is thus seen how the prehensile power of the great toe, by that meaning the power of the flexor longus and brevis and the abductor pollicis assisted by the tibial muscles prevent the pronated position, sustain the body weight temporarily but must give out if subject to constant strain. In the majority of cases presenting themselves for treatment on account of pain, the weak attitude with the front part of the foot abducted was first assumed unconsciously or forced upon the foot by using bad shoes. From continuous use of the foot in this position the prehensile muscle acting at a disadvantage, the inner arch bearing the body weight gave way with ligamentous stretching. In those cases secondary to acute or chronic disease in the ankle, knee and hip, the adducted attitude was assumed because that is the position in which one may walk with greatest comfort with disease of the ankle, knee and hip. The reason of this is, that the body weight falls entirely on the heel, and the patient unconsciously shifts it there by the attitude to keep from bending the diseased ankle, knee or hip. Later the attitude became permanent, partly from habit and partly from a changed relation of the bones forming the joints mentioned. The production of joint strain is due to the unstable foot bases in the pronated attitude. To present the clinical side of the condition which may perhaps alone be interesting to you, I submit the report of the following cases. The details of these cases will present the symptoms, physical findings, method of examination and treatment.

Mrs. B.—Several years ago she increased rapidly in weight gaining about 40 pounds in nine months; she took very little exercise; led an apathetic life. The first thing that was noticed, was great weariness from little exertion, then both feet began to hurt, the pain being located at the inner and outer side of the ankle, at the attachment of the posterior tibial to the scaphoid and along the course of the tendon of the peroneous longus as it winds across the outer surface of the oscalcis. At night the knees and outer portion of the calf of the leg ached a great deal; this continued for about a year; she was able to get around of course. It was thought that she had rheumatic gout. Both feet were pronated, the toes turned out, the ankle rolled in, Meyer's line passed off the internal arch at the astragalo-scaphoid articulation; dorsal and plantar flexion was possible to a normal limit, voluntary adduction was limited, the effort feeble; there was no flattening of the arch; the peroneous longus was in a state of spasm, adduction producing pain; a foot plate was applied, the highest lift of the plate being carried forward to the inner cuneiform the tarsal pain was instantly relieved. The knee pain and aching in the leg disappeared in about a month after the application and constant use of the foot plate. The relation of the pronated foot to the pain in the knee and calf of the leg is definite clinically, and can be explained anatomically and mechanically with perfect accuracy, but its demonstration is complicated and tedious, hence I simply refer to it. She will have to wear the plates all the time. This case and the one following illustrates the most common type of the trouble.

Case No 2. Mrs. G.—She complained that she could not walk further than a few blocks without giving out; in Church she had to stand first on one foot then on the other; she had pain in the instep in both

feet and bach-ache; there was no knee pain; the feet were pronated but perfectly mobile; the ranges of motion, both voluntary and passive, were normal; there was no spasm; plates were applied; she can now, by using the foot plates, walk four or five miles with only that degree of weariness to be expected from this amount of exercise by a woman. She has to wear the plates only when walking a great deal. Here the interesting point was the relief of the pain in the back; its explanation is anatomical and mechanical too, but can only be demonstrated by a complicated examination of the relation of the angles of the medico-tarsal ankle, knee and hip joint; it may be passed over for the sake of brevity by the statement that the position of pronation so acts that the back muscles are tired out to the point of aching with comparative little exertion.

Case No. 3. Mr. S.—His business kept him on his feet all day. At the time he was seen there was very great pain in the instep, at both sides and behind the ankle; in the heel and at the attachment of the plantar fascia and the tendo-achilles. The ankle was pulled behind there was a good deal of pain across the ball of the foot and just external to the attachment of the patella tendon; the patient walked with great pain; without rising upon the toes; with knees flexed, feet wide apart, seeking a broad base of support, like the gait of a feeble old man; all the motions of the feet were painful; dorsal flexion was limited by the spasm of the soleus; voluntary adduction was almost impossible; the tibial muscles being almost paralyzed by the strain they had borne; there was spasm of the peroneous longus, which, with no opposition on the part of the tibial muscles, held the front part of the foot in adduction. This represents the the severest type of what one might term, acute pronated foot, approaching flat foot in its anatomical defects, with all the symptoms of that condition. Plates were applied, all the muscles of the feet leg and thigh had to be gradually re-educated to take up their proportionate share in sustaining and propelling the body; he was put to bed; given massage, electricity and exercised every hour and a half, going back to bed immediately after the exercises, in order to relieve the foot of passive weight bearing; the feet were put through the normal motions twice daily, recovery was gradually necessarily; after two months treatment he was able to return to his business; at present the right foot is perfectly sound; he does not wear a plate in the right shoe; there is no pain in the knees; the left foot is a little painful where the peroneal tendon winds around the cuboid; if the plate is not worn in the left shoe, but with the plate in the left shoe there is no pain; this left peroneous longus is still somewhat spastic; the spasm will disappear when the voluntary adduction becomes a little stronger. His manner of walking now shows nothing wrong, except that it is not quite as active as it should be. In a little while he will regain entirely his normal strength and activity.

Case No. 4.—The effect of the pronated foot in this case was quite dramatic; the patient gave a history of having had a severe boil on his right patella in 1889; this followed an injury; the history of this suggested a suppurating pre-patella bursitis; it discharged for about six weeks; examination of the site of this abscess did not suggest that there was originally any bone disease. The knee at the time of the trouble was bandaged, a posterior splint extending from the buttock to the ankle was applied. It was thought that there was a connection between the abscess, the patella and the joint. After the place had healed, the joint was immobilized for about eight weeks; the pain ceased after the healing and the muscles of the leg had atrophied from disuse. At the end of this period, fourteen weeks after the beginning of the trouble, he started to work clerking in a store, standing on his leg all day; the pain in the knee joint immediately returned, it was the same but from a different cause now; tho' the attention of the patient and the attending physician was centered upon the idea there was still a disease in the knee joint. He had begun to use the leg with the foot in the pronated position, and this was the cause of the knee pain, there was some pain too, though little, in the ankle. He was advised not to use the leg much, and since 1889, had walked with a crutch and cane. He presented himself for treatment last October; the motions of the knee, hip and ankle, were perfectly normal; the leg was atrophied and flabby, the foot was pronated. This was the whole trouble; a foot splint was applied to properly support the foot; the knee and ankle bandaged with flannel bandages to give some support tothem; the leg was given massage; the cane was at once discarded; he was put on exercise, tonics, the exercises being gradually increased. In six weeks the crutch also was discarded; the patient walked with perfect comfort and a natural gait.

DISCUSSION.

Dr. Munroe.—I am sure the Society enjoyed the doctor's paper, and in behalf of the Society I desire to thank Dr. Hoke and request that he turn the paper over to the Committee on Publication.

The Physician as a Sanitarian.†

By Dr. David A. Stanton, High Point, N. C.

If Moses while journeying through the wilderness recognized the importance of observing certain sanitary laws, where ought we of the twentieth century to be? Instead of having attained a degree of perfection along this line, I ask, where are we? The answer is still, in the wilderness as compared with where we ought to be. Yet, during the last decade the researches along biological lines has greatly broadened the field of preventative medicine. The microscope and the culture-tube have been the scouts and sentries in the war-fare against disease, until we are beginning to see preventative medicine grow in interest, and the people are demanding the service of sanitarians as never before.

Dr. Henry Baker, of Michigan, has well said: "Eminent men in the medical profession, have prophesied that, in the future, the duties and labors of physicians, finally, will become more largely preventative, than curative of disease. While this may prove to be true; it would seem to be more in harmony with the general laws of progress that there should first occur a division of labor—a separation of the profession into specialties, one being devoted to preventative, and the other portions to the several branches of curative treatment. It seems to be admitted, however, that a broad culture in all of the medical sciences supplies a good basis for the training of a specialist in any branch of medical practice, and preventative measures are expected to apply to any disease treated by any specialist.

The general good of mankind, therefore, calls for an interest in, and some knowledge of sanitary science, and its practical application in public health work on the part of every physician.

The ideal physician, therefore, is an ardent sanitarian employing the various prophylactic measures known to modern science, and through his precepts, and practice along sanitary lines will lessen disease, and thereby, reduce his patronage. He seeks no equivocal course in his life-saving effort. His is the only profession which is continually legislating against his pecuniary interest. The intelligent patrons of any physician make frequent, and sometimes urgent demands upon his services as a Sanitarian.

He rises to professional success as a school-master, teaching and training his patrons in the prevention of disease. He is not always called because of the potency of his pills and powders, but often to give advice upon the many subjects of preventative medicine.

It may be concerning the clothing of the infant, or the question of bathing, of feeding, of ventilation, of isolation, of immunization, or of disinfection; of these, and many kindred subjects he speaks among his people as one with authority.

As an educated physician he should know, and as a conscientious one he should practice these precepts, for the good, not only, of his own patrons, but of the community of which he forms a part.

The medicine of the present period tends more and more toward the direction of prevention; and if the physician proposes to keep himself abreast of the times, it is imperative that he be in touch with the advance along these lines.

For the physician, who is a Sanitarian, the hygiene of infection is a subject of inexhaustible interest. The cause of infection, its geographical distribution, modes of dissemination, portals of infection, and prophylaxis. These, and other phases of the subject afford him food for thought. In time, perhaps, he has joined the army of scientific writers, and the result of his research is written in the great book of Sanitary Science.

The physician who is a Sanitarian is rarely if ever a factor in the spread of contagion. His instincts and training lead him to studiously avoid the possibility of his becoming an agent in the transmission of diseases.

But what shall we say, on the other hand, concerning the physician who takes but little if any interest in sanitary science?

I scarcely need remind you that a great many physicians are criminally indifferent after visiting contagion, taking no precaution in change of clothing or personal disinfection The fever thermometer, that common carrier of disease, is transferred from mouth to mouth without disinfection, and other instruments are frequently used in the same criminal manner.

The question is sometimes asked: "Should a physician refuse obstetrical calls within twenty-four hours after attending smallpox, scarlet fever, erysipelas, diphtheria and measles"?

The answer to this question has not materially changed since Dr. O. W. Holmes wrote his essay on the "Contagiousness of Puerperal Fever".

Let no physician be lulled into a sense of

†Read before the North Carolina Medical Society, at Durham, N. C.

false security by resorting to moderate precaution under such conditions should necessity call him to the puerperal bedside.

The personal preparation of the physician at such a time should be more thorough if possible than that of the most pains-taking laporotomist before operating.

Without a knowledge of bacterial origin, but by clinical evidence alone Dr. Holmes proved conclusively the infectious nature of puerperal fever. Yet, now after more than fifty years have elapsed with the side lights of bacteriology and microscopy thrown upon puerperal fever, there are physicians who recklessly pass from cases of contagion to midwifery. To such practitioners the words of Dr. Holmes apply. It may be that offense or disease will come but woe unto him through whom they come, if we catch him in the voluntary or careless act of bringing them.

Whatever independence may be granted to those, who have, heretofore, been the ignorant cause of so much misery; the time has come when the existence of a private pestilence in the sphere of a single physician should be looked upon, not as a misfortune, but as a crime.

During the past two years a mild form of smallpox has appeared in various parts of the United States. The attitude of some physicians toward the disease reflects no credit upon the profession. While the ignorant, or indifferent, or obstinate physician refused to accept the diagnosis of smallpox, the infection spread, and life was endangered, and business interests were disturbed.

In my own town we had a clear demonstration of what one careless physician can do. Either for popularity, or lack of better discretion he sided with the laity when compulsory vaccination was ordered. The result was, the first case of smallpox this physician saw, died in the congestive stage, and was called brain fever; the second was called chicken-pox, and was allowed to go at large until he had spread the disease, and the city had the unpleasant experience of stamping out an epidemic of that loathsome disease at the cost of some thousands of dollars. Just the opposite was seen a few years ago when scarlet fever made its appearance; the wisdom and advantage of precaution were forcibly demonstrated. One of the local physicians was called to see a sick child, and found a well developed case of scarlet fever; a rigid quarantine was enforced; disinfection practiced, and the disease was confined to that one house.

It is sometimes charged that health boards are becoming more and more autocratic; even to an offensive degree, and that physicians and citizens frequently suffer injustice because of their Imperialistic methods. Rarely can this charge be sustained. The health officer who seeks the greatest good to the greatest number will cause some hardship to the few, in the discharge of his duty.

It is true that the power of the health-officer should be wisely used. His training should not cease with a thorough knowledge of sanitary science. He should be gifted with discretion, yet withal be firm. There should exist between the health-officer and his brother physician a spirit of friendliness, of education, and the merging of all sectarianism in the fact of their common mission, under the Holy name of Physician.

In conclusion I wish to call your attention briefly to our public schools. The physician who is a Sanitarian is deeply interested in the school life of the child. It is a lamentable fact that the school buildings of today, with few exceptions, are insanitary.

In heating, lighting, seating, and ventilation health rules are generally ignored, and the helpless child is compelled to submit to cruelties for six hours in the day for months that a man would not endure for an hour.

When there is more attention given this phase of Sanitary Science, there will be fewer cases of tuberculosis among children; fewer cases for the specialist in diseases of the eye and ear, and fewer undeveloped young females for the gynecologist.

Some Observations Relative to the Time and Indications for the Use of Obstetrical Forceps.*

By L.D. Wharton, M.D., Smithfield, N.C.

In all the domain of Medical Science very few subjects are so universally interesting and withal as important to the well being and life itself of the human race as the one I have chosen for your consideration.

From the point of view of a general practitioner it has interested me particularly, at times to my dismay seemingly conflicting with all I had even heard or read pertaining thereto. Consequently upon first being requested by the Chairman of this section to prepare a paper my mind at once reverted to it as one that any body of medical men might profitably attend. I have not hoped to offer this society any-

*Read before the North Carolina Medical Society, at Durham, N. C.

thing new or original. I offer no rules, no methods, my purpose being to bring the bare subject to the attention of the society and perchance, elicit some expressions of opinion and experience from members. Shold this be the result I shall have been more than repaid for any feeble effort.

All obstetricians will agree with me concerning the very great importance of the correct choice of time for the application of forceps in labor, and this is the objective point in this paper. There cannot be formulated a rule for practice in all cases and therein lies the difficulty in the practical application of the instrument. The time then for the use of the forceps depends upon the merits of each individual case. As the American Journal of Obstetrics well says, "In many cases the indications are such as to admit of no doubt, in other cases it is simply a question of individual judgement."

This of course, is influenced by the experience, and rightly so, of the accouchers, while I fear it is often largely and unduly influenced by his pre-conceived opinions or notions. In other words this obstetrician differs from that one, naturally I may say, as to the danger point of approaching convulsions, excessive feebleness, threatened rupture of the uterus, dangerous hemorrhage, and asphyxia. They differ also as to impending danger to the fœtus from prolapse of the cord, complicated presentation feebleness of cardiac pulsations and other indications for instrumental interferance. How many in this society have stopped to examine the cardiac pulsations? I may have been remiss but I confess I never have and right here I am reminded of the following clipped from an old work on Obstetrics, Meig's, which if true is quite a condemnation of my neglect in this particular. "The obstetrical forceps is designed to save the child, and that relief which is given to the mother is but an appurtenant to it," and yet the same author says the "Motive for the operation should be clearly understood as referable to the mother and child; to the mother alone; or the child alone." Parvin says "Whenever the life of either requires immediate delivery."

Often indications, unfounded though they may have been, have arisen that determined me resort to the use of forceps when upon the expiration of a little time in the preparation for the operation pains have suddenly become stronger and more effective culminating in a very short while in natural birth. Who will gainsay that the mother was not far better off not to mention the child? Delore suggested that if it happens that the obstetrician has not his forceps with him it is better to send rather than go for the instrument lest labor end in his absence.

Certainly not a few cases occur in which one or more indications for the use of forceps have been present and yet labor terminate safely in the natural way. Take for instance the indication that portends great peril to the life of the fœtus viz. prolapse of the cord. I have more than once seen this complication yet, for reason, delayed to apply the forceps and still without evil results to the child. The question, is the use of forceps permissable in order to shorten the mothers suffering, is often presented to us. Suffering is not given as an indication for its use, by any author that I consulted, Parvin asks the question, though does not answer it, but states that Spiegelberg admits this though says the operator must know his business, which is only begging the question. I am free to say that when labor is natural and no danger threatened nor anticipated one would not be justified in applying the forceps. Sajou's Annual and Analytical Cyclopedia of Practical Medicine says the forceps should never be used unless there are positive indications for its imployment and I contend that suffering is not a positive prejudice to the constitution of the patient.

The latter authors states that the "forceps is the most important and useful instrument in the entire domain of obstetrical surgery, being both conservative and preservative" most heartily accepting this as beyond all cavil.

I desire to call attention to the word "preservative" in which the same author claims we actually anticipate the possibility of immediate or ultimate death of the mother or her unborn child. We do not have to wait until serious complications that endanger the life of either have arisen. We can often avoid the useless waste of strength and vital energy as well as untold suffering by rightly anticipating grave complication.

A very forcible illustration of this truth came to my notice a few weeks ago. Mother at the end of eight months pregnancy, weak and exhausted from ovarian complications and neurotic tendency, having been confined to the bed for more than two months was considerably emaciated and having fainting spells. Labor pains, lasting an hour or two, entirely ineffectual but exceedingly weakening, at intervals of twenty-four hours together with general condition and evil forbodings determined the operator and I, that forceps should be applied and labor ended. Thus anticipating danger ahead the operator applied the

forceps to the childs head above the superior straight and saved both mother and child. Had we waited the mother must have succumbed to exhaustion and the child lost. Owing to the complications of labor independent of the mechanism we had what Jewetts terms an anomaly of the expelent forces and we knew natural labor was an impossibility. Then we may not always wait for specific indications. It is entirely possible to anticipate conditions with the knowledge we have of our patients condition and idiosyncracies that will justify instrumental interference.

Finally I know not better how to leave this subject with you than to quote a few lines on the subject from a report of the Rotunda Hospital. "Our established rule is that so long as nature is able to effect its purpose without prejudice to the constitution of the patient, danger to the soft parts or the life of the child, we are in duty bound to allow the labor to proceed, but as soon as we find the natural efforts are beginning to fail and after having tried the milder means for relaxing the parts or stimulating the uterus to increased action, and the desired effects not being produced, we consider we are in duty bound to adopt still prompter measures and by one timely assistance relieve the sufferer from her distress and her offspring from an imminent death."

Some Points on the Hygiene of Infancy and Childhood.†

By Sallie Borden, M. D. Goldsboro, N. C.

In my attempt to touch upon the majority of the subjects that demand mention in a paper of this sort, I shall be obliged to pass somewhat abruptly from one subject to another. It is impossible for one to do otherwise in a brief discuussion under so comprehensive a title.

I have chosen this subject partly because my experience with the specific diseases of childhood has been too limited to allow of my drawing general conclusions from any one or class of cases, and partly because I have always felt that the field of Hygiene is one that has been neglected if not altogether ignored by the majority of physicians.

I consider "preventive medicine," Hygiene, the most important branch of study taught in medical colleges, and I am glad of an opportunity to say something in its behalf.

†Read before the North Carolina Medical Society, Durham, N. C.

I wish especially to call attention to some of the things in which I think that every physician should take time to instruct the parents, particularly the mothers, whom he meets on his rounds. I am in full sympathy with the writer in the Charlotte Medical Journal of January, 1901, who said, in speaking of the great infant mortality, "Instead of writing a long paper for the medical society, tell all you know to parents." The word "doctor" is derived from the Latin word meaning "to teach;" but how many of us lay any considerable stress upon our function of instructors? I am sure that the term "drug dispenser" would as nearly express the conception which the laity has of the medical man. One occasionally meets with self-satisfied people who assume the attitude of the old woman who said, "You can't teach me anything about raising children. I've buried seven." And Alfred Cotton says in his book on the Anatomy, Physiology and Hygiene of Infancy and Childhood: "A belief that has taken hold of the lay mind and to some degree, also of the professonal mind, is that the maternal instinct endows the the mother with a knowledge that is sufficient for all the requirements of the infant, (affection versus science!)" Commenting upon this generally accepted notion that maternal instinct is a safe guide, Mrs. Charlotte Perkins Gilman asks, in her book, "Women and Economics," Can maternal instinct discriminate between Mellins' Food, Nestle's Food, Pestle's and all the other infants' foods that are put upon the market? These are not prepared by instinct, maternal or paternal, but by chemical analysis and physiological study. The record of untrained instinct as a maternal faculty in the human race is to be read on the rows and rows of little graves that crowd the cemeteries."

But this belief in the sufficiency of maternal instinct sometimes hinders the doctor in his work, more frequently all his words, wise or otherwise, sink into the minds of his patients, and if he has once gained the confidence of the latter in his ability, he may accomplish really gratifying results in the cause of sanitation.

Cotton says, "Hygiene in its broadest sense embraces all that pertains to the environment in its relation to the well-being of the individual; and it demands a fairly comprehensive knowledge of many subjects, including Anatomy, Physiology, Biology, Chemistry and Physics, to which must be added a familiarity with the general principles of Heredity, Evolution, Climatology, Dietetics and Culinary Science. To the objection that no mother

may compass these requirements for the proper care of her child, the reply would be the citation of instances in which mother's have done this and more. There is no doubt that the coming ideal mother will eventually rise to these at present ideal requirements. The widely prevalent lack, at present, of such preparations on the part of mothers only emphasizes the importance of the physician's increasing his information in all that pertains to this subject."

Since derangement of the digestive gract is the most frequent cause of illness amont both infants and older children, I will say something first, along this line. The doctor should explain to the mother something of the physiology of digestion. In the case of a nursing infant, he should tell *why* it is harmful to put the baby to the breast every few minutes to stop it from crying. The digestive juices flow in sufficient amount only at a regular and pr per intervals of time; and trouble is sure to follow if this law of nature is overlooked. For the same reason it is important that the child should not be nursed too often. On the other hand, passing over the feeding hour induces overfeeding from an over-destended mammary gland, and this unusual amount taken at an unusual time finds the digestive juices unprepared. During the first six weeks of life, the infant should be put to the breast every two hours during the day, and once at night. From six weeks to three months the intervals between feeding should be increased to two and a half hours. During the latter part of this period the night feeding may be discontinued. Between the third and sixth months the intervals should be increased to three hours, representing seven feedings between 6 a.m. and 11 p.m. inclusive. By the end of the year the infant may be accustomed to five feedings during the twenty-four hours. If sleeping, he should be awakened at the proper time for nursing, until the habit becomes established. The nipples should be cleansed before and after nursing.

There is a difference in the length of time needed by different infants to get the requisite amount of nourishment at each feeding. For example, a vigorous infant may be able to get all that he needs in ten minutes,if the mother's supply of milk is bountiful and flows freely. But if the infant is weak, or if the breasts are not well filled with milk or have an imperfect nipple-formation, the child may require half an hour to satisfy his hunger. It is safe to say that twenty minutes should be given to each nursing. The restlessness of an infant is sometimes an expression of thirst rather than of hunger. It is important to impress up on the mother that water should be given often and freely, A great deal of the "wear and tear" of the nursing period can be avoided if the infant is trained to regular habits of nursing and sleeping. The great gain to the mother is that she is enable to have undisturbed rest at night. This is of the utmost importance, and has more to do with a good milk supply than any other single thing in connectron with the mother's habits. It is often better to feed the baby from the bottle during the night than to disturb the sleep of the mother.

Nursing mothers should be instructed in regard to the conditions in themselves which favor or hinder normal milk secretion. They should drink plenty of milk, and eat an abundance of simple, nourishing food. According to L. Emmett Holt, sour fruits eaten by the mother are not likely to disturb the infant, unless they cause symptoms of indigestion in the mother. The same writer says that the maternal conditions which are most likely to cause colic and indigestion in a nursing infant are extreme nervousness, fright, fatigue, grief or anger; sometimes menstruation. Symptoms in the infant which should make the physician suspect that the child is not being properly nourished are tabulated as follows;

1. Rise of temperature,which in extreme cases may be 105 or 106.
2. Stationary weight.
3. Irregular and disturbed sleep.
4. Fretfulness or crying.
5. Irregular or unhealthy looking stools.
6. The child nurses a long time before he is satisfied. Or he may nurse vigorously for a few minutes, and then drop the nipple in apparent disgust;
7. In the later months the symptoms of incipient rickets may be seen; for example, inability so sit or stand at the proper age; delayed closure of the fontanelle; delayed dentition; frequent perspiration about the head, anemia and other general signs of malnutrition.

In the above class of cases careful examination of the mother's milk should be made to ascertain whether or not the trouble is due to the insufficient quantity or poor quality. Massage of the breast has sometimes seemed to do good in cases of insufficiency in the supply of milk: and as has been mentioned above, insist upon hygienic mode of living for the mother as it may bring about excellent results in the baby. But it is not well to wait long either to secure a suitable wet-nurse or to begin artificial feeding.

The subject of the artificial feeding of in-

fants is far too extensive a one to be disposed of briefly; so I will omit it entirely.

I will say only a few words as to the proper diet for older children, since common sense and experience must, in most cases, be the mother's chief guides. Parents should be taught the relative nutritive value of food-stuffs. They should be especially warned against allowing children to eat at irregular hours or to tax their stomachs with sweets, pastries, pickles and other producers of dyspepsia. The use of condiments other than salt and the use of tea and coffee should be discouraged. Thorough mastication should be made a part of the child's training. Milk should hold first rank among the leading staples throughout childhood. A child regularly fed on properly selected food will rarely injure himself by over-eating.

The same care that is to be observed in establishing regular habits of eating and sleeping should be observed also in the matter of attending the evacuating from the bowels. Constipation is a condition in children that is often overlooked by parents and that might be prevented if the child were trained to the habit of emptying the bowels daily, preferably in the morning, just after breakfast.

As to the amount of sleep needed by children at different ages, it may be said that a very young infant should sleep all the time when not being nursed, bathed or dressed. He should be encouraged to sleep as much as he will, being guarded from noise and disturbance. During the second year he should sleep from fourteen to sixteen hours out of the twenty-four. A child of six years needs twelve hours sleep, and one of twelve should have about ten hours. The custom among some parents of letting the children retire with the family, no matter what late hours the later may keep, can not be too strongly condemned.

Another matter that should engage the attention of the physician is the proper mode of dress for the baby, and for the growing boy and girl. Some of the commonest instances of neglect of nature's laws is to be seen along this line. The first requisite, of course, is a sufficiency of clothing to maintain equal bodily warmth. Mothers often let their children go unsufficiently clothed in cool weather. The little one is sent out with stockings on that reach only half way to the knees; or his arms will be protected on a cool morning or evening, by only the thinest of muslin sleeves. It is small wonder that catarrhal troubles are so common among children. When babies sicken and die as a result of such negligence as I have mentioned, a scolding would sometimes be more fitting than expressions of sympathy for the parents. Holt says that little children do not, as a rule, require as heavy flannels as do older people; since they spend a good deal of their time in a warm nursery, and their circulation is active. When they go out of doors the addition of coats, and leggings in cold weather makes the thickest flannels unnecessary. The clothing must be loose enough to allow perfect freedom to the limbs; and bands around the waist should be avoided. The ideal night garment for a young child is a sort of bag that envelops loosely the entire body, and is drawn together below by a draw-string. This should be of light woolen material; and if extra protection against cold is needed, a light shirt may be worn under the bag-like garment. For an older child, the combination night garment (shirt, drawers and stockings combined) is best.

Under the subject of children's clothing, I wish to say something in regard to the barbarous custom of putting corsets on young girls. Dr. Fitch, of Savannah, Georgia, says in an article on education of young girls: "It is at the puberty and frequently earlier that the parents give their consent for the girl to commence the use of the corset, and to use her own ideas as to the degree of constriction. The greatest constriction occurs in the immediate neighborhood of the stomach. When the stomach is distenedd, as after a hearty meal, constriction produces the "hour-glass stomach" found at times in this class of patients. When the corset is worn, the small intestines are crowded partly out of the abdominal cavity into the pelvis, helping to cause forward displacements of the uterus when the rectum is full, and backward displacement when the rectum is empty and the bladder is full." The compression interferes with the normal action of the abdominal muscles, and with peristalsis; as a result, the girl or woman becomes the victim of indigestion and constipation. The muscles of the abdomen become flabby, lacking in tone; and so long have those of the back been partly deprived of their function of maintaining the erect posture, that when their steel support is taken away, the patient says that she feels as if her back will "break in two." The normal breathing of women is partly abdominal and partly thoracic; corset-wearing changes the type to chest-breathing. It is quite impossible for a girl or woman to breathe properly or to take necessary exercise in a corset; for even this latter article if it "fits" (according to prescribed notions of fitness)

exerts undue pressure on the abdominal organs.

Dr. Fitch also says that absence of menstruation, and painful menstruation with profuse flow are due mainly to faulty development of the uterus and ovaries; and the chief cause of this faulty development he traces to the use of the corset, specially during the period of puberty. He says that he believes that even cancer of the womb is in some cases indirectly due to this improper mode of dress; for the seat of cancer is usually about the mouth of the womb, and it is this part that is irritated by rubbing against the floor of the vagina when the womb is pressed down from above. The custom of wearing heavy skirts suspended from the waist does harm in the same way that corsets do.

The only remedy for the evil is a radical change in the dress of girls and women. An immense improvment would be found in the Grecian dress or some such outer garment as that worn by the women of Japan, the garment made in one piece and hanging from the shoolders.

It has always seemed to me strange that doctors generally have so little to say against the use of the corset. It must be because they are so accustomed to seeing misshapen girls and women that they don't really know what the natural form should be! Doctors are mostly *men*, who have never experienced corsets! Then, too, they are, as a rule, gallant enough to give women the credit for having common sense in vital matters. Most women, when queestioned about it, will tell you that they feel quite comfortable in their dresses; just as the Chinese woman would say that she felt no discomfort from the tiny shoes which they have worn from babyhood; and so it happens that doctors let the matter rest. But it is very gratifying to me to note that many doctors, through the medium of textbooks and medical journals, are insisting upon the abolition of the corset.

As to the amount of exercise that children should take, it is hardly necessary to make specifications; for in young people the joy of living expresses itself in rompings and athletics of all sorts; and given plenty of air and playing space, the child may be relied on to acquire the muscular strength and active circulation that go with good health. If properly protected from sun and wind there is no reason why even a very young infant should not spend the whole day out of doors when the weather is mild. The more sickly the child, the more urgent is his need for sunshine and pure air. The nursery should be a large sunny room. It should not be used also as a sleeping apartment. Each child should have a bed to himself, and if necessary for someone else to occupy the same room, special care should be taken to secure one that can be well ventilated without subjecting the child to draughts. The nursery should be simply furneshed, preferably with rugs instead of carpets, so that it can be the more easily kept clean. On no account should wet or soiled diapers be left lying about. In fact, nurses must be made to understand that cleanliness, instead of being "next to godliness", is really one of the manifestations of godliness! Care of the first set of teeth should be insisted upon.

Cotton writes: "Of equal importance is care of the fauces, nasal passages and pharynx; especially because of their intimate relation to the respiratory, digestive and auditory systems. The toilet of the mouth, nose and pharynx is even more important than that of the skin; and the infant's toilet outfit is incomplete without a tooth-brush, nasal syringe and an atomizer."

I am afraid of taxing your patience by this disjointed paper, which does not claim to be more than a restatement of generally conceded, if commonly overlooked, facts. But I will ask your permission to say a few words more. In a recent article in the Charlotte Medical Journal the writer lays emphasis upon the duty of physicians to see that physiologic truths are taught to young people. He mentions, especially, the need of instructing them in regard to the use and the abuse of the sexual function, believing that much of the world's misery could be avoided if only the children were given the instruction that they need along this one line alone. For my part, I believe that it is a sacred duty of all who have children in their care to teach them, as soon as they are able to understand it, *everything* that they need to know in regard to the physiological laws on whose observance depends their development into strong, pure men and women. Following the advice given in the article just refered to "let us teach these truths systemetically, by lectures and writing, at school and colleges, at patients' homes, and in our offices. It will take time to undo the work of generations, but fortunately the good seed grows, if not as fast as the bad."

In conclusion, I wish to quote, in full, a passage from Alfred Cotton's book on the hygiene of infancy and childhood: "Where the organic elements are so delicate, where their relations are so changing, where so long a time is needed for them to secure their normal and healthy completion of growth, it must be clearly evident that the

artificial conditions which constitute their environment must play an important part in deciding the value of their ultimate activity. Such things taken together go to form a child's nutritition, for this term can not rightly be used to designate his food alone. The problem is finally one of nutritition in the broadest sense. Whatever makes for the fullest development of cells is properly included in this term. The child's needs are very different from those of his mature relatives, and disturbances of mind and body occur to him with the greatest readiness and may produce irremediable injury. Hence parents should see to it that the child's environment is designed, in every detail, to further his proper growth. Unfortunately with most people, the main test of whether a child is being properly fed, is that he does not die. The test whether he is properly clothed, is that he does not freeze. The test of whether he is properly taught is that he sits quietly and passes a sufficient number of examinations. It seems that it would be better in many cases that the child should starve, freeze or remain uninstructed. The medical man does not do his full duty to the child when he cares for it only in sickness. His broadest duty is to prevent sickness. He must note carefully the hereditary tendencies with which the child is endowed and strengthen it at the weak points; develope it along the lines which may be expected to be deficient, and act generally as the director of the conservation and development of the child."

Report of the Chairman of Section on Obstetrics.*

By Frank H. Russell, M.D., Wilmington, N. C.

Mr. President and members of the N. C. Medical Society:

During the past year there has been much study and work done in this branch of medicine, the result of which has been principally the improvement of methods already known, thereby giving us fewer deaths and better recoveries.

There is yet much room for improvement as many gynecologists say that 40 to 50 per cent. of their patients date their trouble from child-birth, and a great many of these troubles should have been prevented. As a means of prevention, I think reform in obstetrical nursing would accomplish much, as a rule this line of nursing is done by the same class of nurses as did it 50 years ago.

In every other branch of medicine we no longer rely on any nurse the family happens to fancy; if the case is at all important we demand a good nurse, and so it should be in obstetric cases, when circumstances permit have a trained nurse, otherwise have an intelligent white nurse. Every physician can select several young white women from his acquaintance who are anxious to work and have a natural turn for nursing. With a little trouble and in a very short time they can be taught the management of cases. I have tried this plan and find that it is productive of good results. I do not compare these nurses with trained nurses, but they provide for a class of patients who are unable to get the best, and a very large class it is. After every labor there is more or less contusion and laceration of the maternal soft parts, which cannot be prevented and whether these heal by first intention or leave a hyperplasia, a subinvoluted uterus, with the long train of symptoms dependent upon these conditions, depends largely on the nursing, clean or unclean.

Relief of Pain.

Relief from the pain of child-birth has been a subject of study by many, and every thing that offers hope is tried. Cocanization of the spinal cord is being tried. In July, 1900, Kries, of Germany, reported several cases.

W. R. Stone, of New York, February Journal of Obstetrics, contributes a very interesting paper. He says: "This method was amply demonstrated at the New York Maternity Hospital, having used it 35 times with absolute results in every case. The effects of the injection lasted from ½ hour in the shortest to 4½ hours in the longest case, the anesthesia being complete, so that not only was the skin free from painful sensations and the uterine contractions in no way retarded, but the latter occurred without the knowledge of the patient.

Method.

Dr. S. Marx, of New York, has had in the neighborhood of 200 punctures with two failures, both in intensely neurotic women. He uses the following method: Patient in exaggerated inclined position, back rendered sterile. The solid hypodermic syringe, which has been boiled for ten minutes, is used. The thumb of left hand is placed on spinous process of fifth lumbar vertebra, the injection is given between the fourth and fifth spines, the needle is inserted in front of and over the edge of thumb, the direction being from above downward and without inward, if the lamina is struck move the needle gently up and down until

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it passes, the point is pushed in until a clear fluid runs out. As much of the cerebro-spinal fluid is allowed to escape through the needle as cocaine solution to be injected, in order that pressure in cerebro-spinal canal may not be altered; then the syringe is screwed on, disturbing the needle as little as possible, the cocaine is then injected, 8 to 15 ♏ of a 2 per cent. solution, representing 1-0 to 1-4 grain of the salt. The needle is held in site for a minute to plug the arachnoid puncture and increase the impossibility of the escape of injected fluid. After this the puncture is sealed.

Action.

A few minutes after injection the patient complains of tingling or coldness in lower extremities, nausea and projectile vomiting which lasts only a short time, a gradual numbing of painful sensations; in less than 15 minutes the patient lies absolutely at rest with closed eyes, pain abolished, while the mechanism of labor progresses uninterruptedly, In many cases an intense headache comes on a few minutes afterward which may be relieved by nitro-glycerine or hydrobromate of hyoscine. The time to give injection is when the cervix is dilated about the size to admit four fingers and is getting thin. Several injections may be given during a labor.

The patient must be told to lie down or the abdominal muscles will not be used.

It is claimed that all of the operative procedures in obstetrics may be done without the slightest pain.

Many who have used it report unfavorable symptoms, very troublesome nausea and vomiting, depression, severe and protracted headache, involuntary movements from bowels and bladder, partial paralysis of lower limbs lasting for several days.

From its present status I cannot see the advantages over the old way of relieving pain. I think we very often overlook this very important point relief of pain. In nearly every case a hypodermic of ¼ to ½ grain of morphia should be given in the first stage; this relieves the pain and nervousness and lessens the amount of chloroform used. As a rule, we should give chloroform in every case. Many cases require a very small quantity, often a few drops given at begining of pain has a happy effect, makes the patient forget the pain as soon as it is off and keeps her comfortable between pains, and knowing that we are trying to relieve it often has a good moral effect. Too much chloroform retards labor, and it should not be pushed until head infringes on perineum.

Normal Salt Solution in Obstetrical Practice.

This remedy has passed the experimental stage and is of great value in the treatment of many complications, as post partum hemorrhage, after hemorrhage is controlled this is our best treatment. Enough should be used to effect patient's pulse. The same treatment is used for the acute anemia produced by placenta previa.

Puerperal Sepsis, Eclampsia, &c.

The reports which have come in during the past two years, show most remarkable recoveries due to this treatment. Patient pulseless, bloodless, unable to rally as there is not enough fluid for the heart to contract on, fluid is furnished by introduction of solution, circulation goes on and patient recovers.

The Toxemia of Pregnancy.

This is probably the most frequent complication we have to contend with, and although there has been much study of this condition we are still unable to control it. The cause is unknown and treatment symptomatic. The present belief is that it is a combination of waste products coming from the glands of the entire system and not alone from the kidney as was at one time supposed. All of the glands have an extra amount of work thrown on them during pregnancy, and in many cases they are unable to perform it, hence the waste products in the system. The eliminative treatment gives the best results and supports this theory.

Prevention is what we should strive for in this condition. The patient should be carefully watched, especially should the urine be examined for albumen, and the amount of urea excreted be kept up with, and the amount of urine passed in 24 hours be noticed.

It is claimed that to test the urine of a pregnant woman for albumen alone is negligence. The urea should also be estimated; many patients who do not have albumen in their urine have severe toxemia. A great amount of study has been given to this subject and at present the result may be summed up in greater attention to prevention.

If toxemia is present, which is shown by urinalysis and general condition of patient. the usual eliminative treatment, diet, etc., must be resorted to. Compound jalap powder, tinct. iron, tr. digitalis, in some cases, and the free use of Lincoln lithia water in all cases are our best agents.

If under treatment the toxemia increases, premature labor should be induced. I do not think that we resort to this treatment

often enough. In a severe case of toxemia, nearly every labor comes on prematurely and with a dead child.

Grandin says: "In cases where albumen does not exist or only in traces and yet there is determined a steady decrease in the amount of urea excreted, expectancy may be fatal. The positive rule should be the evacuation of the uterus as speedily as may be, with due regard to the integrity of the maternal soft parts.

Eclampsia being imminent or present our treatment should be evacuation of uterus, as a rule venesection and protracted irrigation of the colon with hot saline solution.

Morphia is contraindicated because it defeats the object in view, paralyzing excretion from bowels and kidneys; veratrum will lower the arterial tension, but does not control the toxemia. Arterial tension may be better lowered by means of large doses of nitro-glycerine, 1-10 gr. The only justifiable treatment of toxemia is the surgical before the active manifestations set in, Whenever the subject of Bright's disease conceives, just as long as the amount of urea excreted remains normal, we are justified in allowing gestation to continue. Whenever at any state the subject gives evidence of kidney insufficiency, which does not readily yield to treatment, it is preferable to trust to evacution of the uterus, chloroform being used to control the seizures.

In regard to the use of morphia hypodermatically to control the convulsions, I look upon it as our best remedy.

I have seen a good many cases where no prophylactic treatment was used, the midwife sending when the patient had a convulsion, probably before labor had begun. In all cases of puerperal convulsions I give 1 gr. of morphia hypodermatically, and if that does not control the seizures in 1 hour, I give ½ or 1 gr, more. With these large doses of morphia the patient takes very little if any chloroform, has no convulsions, and the work of emptying the uterus can be done as satisfactorily as under chloroform. If we do not use morphia the convulsions must be controlled by chloroform, and if it is a case of any severity, it takes a large quantity and has to be kept up several hours. Chloroform given that way certainly interferes with excretion and depresses. Those who oppose the use of morphia do so for the reason that it checks secretion and excretion.

It does this, but it seems also to check the absorption of the toxines and probably prevents their rapid formation; in other words it seems to hold things at a stand-still and gives us valuable time to accomplish the desired object, delivery.

I would like to hear this point discussed by our members, as many able men are opposed to the use of morphia in puerperal convulsions.

Report of Case.

On November 2d, 1900, I was called to see Mrs. ——, and found her age 21 years, primipara, fairly well nourished, feet and legs œdematous, face puffy, color waxy. She was about 7½ months pregnant. I was called to relieve a severe headache which she had suffered from for 2 days. Urinalysis, color normal, reaction acid, sp. gr. 1030, albumen a large quantity. Total amount of urine passed in 24 hours small, excreted small quantity.

I commenced an active eliminative treatment, which seemed to do good for the first 24 hours. After this headache seemed no better, eye sight poor, partially deaf, muscular twitchings of face, flexors of forearms and legs. A consultation was held and it was decided to bring on labor.

One-half grain of morphia was given hypodermatically, patient prepared as for an operation on uterus per vagina. A No. 6 soft rubber catheter was introduced into uterus, high up, by means of a wire stylet which was withdrawn and the vagina firmly packed with sterile gauze. This was 9 P. M. Patient went to sleep about 1 A. M.; at 3 A. M. very restless, having labor pains and headache severe. Labor advanced well and at 6 A. M. she was delivered of a living child, and the patient had no convulsions although she was totally blind for several days and unconscious for 24 hours.

The usual stimulative and supportive treatment was kept up, and patient made a good recovery, the symptoms due to toxemia gradually disappearing.

The child was very delicate for 2 months, but now seems in perfect health. Had not the labor been brought on, I think we would have lost the child and probably the mother

419 Princess St.

Gynæcology: Its Present Status and Possibilites.†

By H. S. Lott, M. D., Salem, N. C.

The scope of my subject is large; and while I do not expect to cover the entire ground, I hope to present some facts worthy of your consideration.

Gynaecology, of all the branches of our

†Read before the North Carolina Medical Society, at Durham, N. C.

work, is preeminently a special branch: offering success alone to those endowed with taste, talent and tact.

Taste for the work, born of a desire to make the lives of their patients more comfortable. Talent, which enables them to recognize a departure from the health line in the female economy, and also suggests the safest, and most certain method of restoring the normal tone. And last, but not least, the tact wherein is blended the firmness of the surgeon, with the gentleness and wisdom of the trusted physician.

Having been given more thought, Gynaecology has, I believed, also received more light within the last decade, than any other branch of our work. To-day we recognize actual conditions, not shrouded in mystery; and have learned to apply actual remedies, freed from empiricism.

At a former meeting of this society, I was asked by a member, whose good will and good wishes I value greatly; what I would do, instead of the proceedures I condemned? The question was right and fair, but I did not know the answer; nor do I now, in full. No man can sum up his life-work at the start, and the solution of the problem lies in a life-work only. The proceedures which I condemned then, I condemn now, as routine proceedures; and believe them to be more often hurtful than helpfl. To these proceedures, viz.; incising the cervix for flexure, dilating and curetting the virgin womb, and vaginal puncture, might be added the fanciful intra-abdominal bow-knot and suspension operations for haltering up the uterus, which are done rather for the notoriety which they bring, than for the help to the patient.

The mechanical operator does many unnecessary things; and therein he differs from the gynaecologist. For intance, during a recent visit to one of our largest hospitals I was most forcibly impressed with the amount of unnecessary manipulation involved in the routine practice of investigating all of the abdominal viscera in reach, before closing the median incision. And while recognizing the operator's skill with the knife, it seemed to me that there was less thought for the vitality of the patient, than for the telling effect of the diction, cailing out to his audience, as they were explored in order, appendix, gall-bladder, right kidney, left kidney, etc. etc., thus invading the home of each vital organ; (it being convenient,) and giving his findings as to their proper make.

The pity of it, that people can't all be made just as the books say they ought. How much troublesome patching 'twould save the "scientific" (?) surgeons of to-day. How many trees in the forest are alike? And yet, all are nature's own handiwork, and each is perfect, of its kind, and fashion.

Did you ever go a-rabbit-hunting? well, you know that in a pack of dogs there's always one that's just a little too good. He always jumps the rabbit, and can out-run any dog of the lot; but he is so sure of his game, and runs so fast, that at the finish, he jumps clean over bunnie, and never catches him.

Now, there is much which the evolution of our science has taught us to do, and do rightly, but when hearing men stand up and advise students to remove the uterus for puerperal sepsis, or at the close of an extensive article on "Displacement of the Uterus, with Adhesions," advise the removal of uterus and appendages, for a cure, my mind reverts to the rabbit hunting days, and I know that in his hurry for the front, he has jumped over bunnie. However, such extremes will come, and must be met and righted. And in the conditions found, which may be corrected, to the patient's comfort and presevation, we have our true reward.

For instance, we know that the time honored "ulcer of the womb" has gone to rest; and together with pelvic cellulitis, endometritis, and a goodly group of the mysterious "Itis" family, is buried, with the brains of its originators. And we no longer treat this condition with a wise look, and swab and cautery, but tell the patient that it is a cervical tear, which could not be avoided but can be repaired, and futhermore, we may tell her that the repair should be done, and without delay; both for her present comfort, and future wellfare. Our reasons being, that such tears, neglected, are most prone to either concerous or tubercular degeneration, soon involving the entire cervix, invading the pelvis, and ending her life.

Statistics show that cancer is much on the increase. This is due, in large part, as in tubercular condition, to earlier recognition, and in part also, to the fact that cervical tears are neglected, either not cared for at all, or treated with swab and cautery, which fans into life the dormant cachexia. There is a close relationship between cancer, and tubercular degeneration of the cervix, both spring from the same prime cause, and persue the same fatal course. The cancer cell is a vague, ill-defined neoplasm; not uniform, not always present even, in so-called cancer. Whereas, tubercular degeneration of the cervix occurs where the diathesis is known to exist. This being the era of preventive medicine, the gynaecologist has no small share of re-

sponsibility. Without the guest chamber, we are not so sure of the guest, and in the prompt recognition of injuries to the cervix, vaginal walls and perinaeum, with a departure from the normal tone inviting access to filth, and also a prompt resort to the proceedures in plastic surgery which restores the parts to their normal condition, lies his path for work, and usefulness.

Plastic surgery restores, creates. From this branch sprang the tree of gynaecology, which to-day has attained such vast proportions. The torn cervix, the recto, and vesico-vaginal fistule, the laxity of the vaginal walls which permits the bulging rectocele and cystocele, the weakened perinaeum, and the lost sphincter, with the distressing chain of symptoms which follows in the wake of each, may be relieved, and the parts restored to their normal tone and supporting functions, by plastic surgery. There is no richer reward in the life of a surgeon, than the gratitude of a woman for whom he has united a torn sphincter.

This branch of surgery is close work, tedious work, and must be done with care for every minute detail in its technique. Failures in it occur often, but they are due to either a faulty toilet or a faulty technique. The work is right, its indications are plain, and, if properly done, it will bring success. Nor is success attained through "special" crook, or "special" curve of needle or scissors, but through recognizing the main want and supplying it by clean, simple surgery.

As to endometritis, parametritis, pelvic cellulitis, and the blalance of the "itises," no doubt inflamed conditions of these regions of anatomy do occur; but they are symptoms only, and demand medical rather than surgical treatment. Ideal surgery seeks and removes the foreign body, the focus of irritation; thus aiding nature in her work, and leaving the parts and system in better plight for healthful reaction. Sharp instruments, and chemicals, applied to mucous surfaces are always hurtful, and leave the part or organ in a maimed condition.

Thus, within the pelvis and abdomen we have conditions which may be detected and relieved by operation. People are no longer satisfied with mysterious wisdom, but demand to know what is the matter, and what should best be done for their relief.

The small cystic or tubercular ovary is a most fruitful source of menstrual pain; the fault being charged to the innocent uterus; which may be normally tilted one way or the other, as its Maker made it, with a long cervix and a small cervical canal.

The vivisectionists say that this pain is most beautifully relieved by black haw—in frogs! but I must confess that I have never seen the slightest resemblance between a woman and a frog; nor do I believe that they are at all alike, either in organism or function.

Lawson Tait has said that "the vaginæ of women differ as much as their faces." The same might be said of the uterus, in the fulfillment of its normal functions. Women menstruate as they do other things; no two are exactly alike.

Pus in the pelvis means, most often, either a pus tube, an abscessed ovary, or an elongated and adherent appendix, pointing south, with a perforation, near which an abscess has formed.

Here the relationship between the pelvic and abdominal organs is so close, and their symptomatology so blended that the field and work of the gynecologist are extended to that of the abdominal surgeon. A knowledge and understanding of obscure pathologic conditions which may occur in both cavities, are essential to the making of a clear diagnosis, and advising the best source of relief, in any given case. In fact, a suppurating process, with its start in the pelvis and left undisturbed, is most apt to invade the abdominal viscera; for instance, and most especially the kidneys; and result in organic disease.

But we know today that such unfortunate sequelae may be prevented, by early recognition and early evacuation of the pus. That an immense abscess, incarcerating all pelvic viscera in its bands of inflammatory adhesion, may be opened and drained of pints of foul smelling pus through the median abdominal incision, kept open for days, and then allowed to heal; leaving the woman in possession of functionating pelvic organs. Such a case has been mine during the past year. The woman having been bedridded for months, refusing operation, for what I told her was pelvic abscess. Finally, in-extremis, she consented; and, in searching for a plane of cleavage, the abscess wall was ruptured, and the pus poured forth, much to my discomfiture at the time; but the patient's condition was such that I did not feel justified in attempting an enucleation of the pelvic contents, and while feeling that it was a very poor and incomplete piece of surgery. I contented myself with washing out the cavity with salt solution, walling off the abdominal organs with gauze, as well as I could, putting a gauze drain into the pus sac, closing the upper two thirds of the abdominal incision, and putting my patient to bed. The after history of the case was as stated; the pus drained out for days, but the patient was free of pain, and hungry, from the hour of the operation; and at this

time, nearly six months having passed, she is in better health than ever before; having gained much in weight, and menstruates regularly. at intervals of one month, without pain.

The clinical history and symptoms of these important conditions, which may be recognized and relieved, pursue a constant and well marked course.

Considering that they are, primarily, of local origin; with local physical manifestations, indicating both functional disturbance, and organic lesion; they should, by the lights of today, be recognized, as are pneumonia, pulmonary tuberculosis, or other like conditions, by the lights of the past. If they are not, it is due, only to the fact that they are not believed in as they should be, and given the careful thought and study they deserve. The time is not long past, when many of us doubted the existence of disease of the appendix as a surgical condition. But this was before we had taken the time and the trouble to educate ourselves in the newer pathology; and we now know that it not only occurs frequently, but that many lives have been lost through our ignorance.

Thus, obscure conditions within the pelvis, as the small cystic and tubercular ovary, the pus tube, the small abscessed ovary, and, in its early weeks, the misplaced product of conception, so fraught with pain and danger to their victim, should to-day be recognized by a careful and systematic examination of each and every patient.

It is in the beginning, by an early recognition of congested conditions, before the breaking down of tissue has begun, that by proper care for the patient, and proper rest for the organ concerned, the formation of abscess may be prevented. Or, if it occur, and the presence of pus is established, by recurrent chills, or chilliness; continuous slight elevation of temperature, recurrent paroxysmal pain throughout the pelvis and abdomen, this pain being of an expulsive character, with exquisite tenderness at a given point, which is guarded by a rigidity of its overlying muscles; then the evacuation of the poison, through an abdominal incision, with the removal, so far as may be consistent with the vitality of the patient, of all disorganized or diseased tissue, and a thorough cleansing of the parts, promises best for her future well-being.

150 South Cherry Street.

Dr. Edward A. Fessenden of Portland, Maine, swallowed two teaspoonfuls of 95 per cent. carbolic acid solution by mistake and died in fifteen minutes.

The Need for Greater Care in Making Examinations and in Sending Patients to the State Hospitals.*

By Isaac M. Taylor, M.D., Assistant Physician State Hospital, Morganton, N. C.

The enactment of Chapter I, Public Laws of 1899, extended the work of the Superintendents of Health, as County Physicians to a set of duties of very great importance to the State Hospitals for the Insane.

In prescribing that persons thought to be insane must be examined by the County Physicians without charge when application is made to them, it practically gives into their hands all these examinations and the law was drawn making these officially responsible that they might better inform themselves, and might furnish more accurate data in regard to the persons whom they have examined, than has heretofore been done.

The first and most important thing is the drawing and signature of the warrants and commitment; this is of course the duty of the Clerk of the Court, but a well informed physician with a knowledge of the law on the subject, and a common sense understanding of the reasons for that law, can do much in the way of seeing that each blank is properly filled, that all affidavits are properly attested and that the signature and seal of the clerk is affixed to the commitment.

All these show that legal inquisition has been regularly held, that proper persons have, under oath, given testimony and that the right of the insane person to proceedings "by due process of law," and the right of society to protection from one whose enlargement is disadvantageous, if not dangerous to the community, have been respected.

Time after time papers must be returned because the legal forms have been carelessly executed and therefrom arise delays and misunderstandings. Then again they may do much toward a proper observance of the law by having the examinations made by the clerks instead of by magistrates, as is allowed under certain conditions. The examination of insane persons was put in the hands of the Clerks of Superior Court for the purpose of having a law officer of intelligence, education and legal knowledge and to make sure that there was a record made of the proceedings, and it is best that the clerk should himself draw the papers.

*Read before the North Carolina Medical Society, at Durham, N. C.

After admission is obtained the medical examiner can benefit the insane persons by seeing that there is less show of force, that handcuffs and ropes are abandoned, the patient clean, free from vermin, properly clothed and always impressed with the fact that he is going to a hospital, not a prison. If restraint is necessary, a strait jacket may be put on, or, as has once been used, a seamless sack with a hole cut for the head and sewed tightly about the body and arms makes a very efficient strait jacket. For those in the Western district, the hospital at Morganton would willingly send a model for making a long-sleeved strong jacket.

A sufficient number of people to care for a patient should accompany him; because an officer is not afraid of a patient, or is strong enough to handle a patient alone, does not insure against bruises and rough handling, and for the sake of decency, good morals and avoidance of scandal, a woman should be of the party when a female patient is sent from a distant point, especially if a night must be spent on the journey.

The purely medical part of the examination more properly concerns the Superintendents of Health, and this is written to beg them to answer fully the questions prescribed by law. These are not idle, but have been digested for years and only those essential to a knowledge of the case and a partial prognosis remain.

It is particularly needed that careful replies be made now, since those selected for admission into the hospitals must be taken from a large number of applications, and the probable prognosis must entirely govern in naming the few who are to be selected.

The name, age and color are usually stated positively and satisfactorily. The occupation of the patient we wish to know for statistical purposes. This question is very loosely answered, when the least attention would give definite, concise information. The mechanical trades, of course, are usually indicated, a laborer should be designated as to occupation, a blacksmith's helper, a farm laborer, a fireman, etc. It is particularly desirable that there be a distinction made between a farmer and a farm laborer, the answer farmer is too indefinite often to properly classify. House-work, house-wife, are terms too comprehensive, meaning anything from a ladies' maid to the wife of a ten-horse farmer. We should know when the person asked about is a cook, house-servant, daughter of a farmer, wife of a farmer, washerwoman, etc. The widest departure in this direction I now remember, is the reply that the occupation of the patient was "wading in the creek and throwing rocks."

The questions requiring two answers are very generally inadequately replied to for instance: Has patient manifested any tendency to injure himself or others? If so, in what way and how often? Is sometimes answered "yes," sometimes, "In various ways."

In what way is disease exhibited, is often answered, "In various ways." Has patient any family, if so what persons compose it. Age of youngest child? "Two months old."

There seems a general confusion as to what is meant by *an attack of insanity*, it is variously answered, some recognizing no period of apparent good mental health as a recovery, others classing each separate demonstration of excitement or epileptic seizure as a fresh attack of insanity. We mean by an attack of insanity, a period of continuous manifestation of mental disease with only transitory return to normal mental balance, the manifestations may not be continuously of the same character but may vary in type embracing a period of mania and then of melancholia, with a short term of quiet when there is apparent near approach to normal.

The investigation into the cause of an attack is apparently often very superficial, little questioning as to heredity or nervous manifestations in near relatives or forebears, or reference to long evidence of general break down with following mental and nervous symptoms. If there is a religious element manifested in the symptoms the cause assigned is generally "Religious excitement," or if insane person is a school boy, "Masturbation" is the favorite assigned cause, or if there is delusional accusation of husband or wife, "Domestic trouble" is given.

We beg that our Examining physicians look beyond the superficial appearances for physical defects, disease of organs, toxic causes from faulty elimination of excretions and the element of heredity which plays such an important part and which is so often concealed; heredity, meaning not simply that some relative has been insane, but there may in one generation be ill health, in the next intemperance, in the next insanity, epilepsy or other neuroses.

The question in regard to Epilepsy is of the greatest importance in prognosis, and with the clear description in almost every text book on general medicine, it is remarkable how many blunder over this, classing hysterical convulsions as epilepsy, epileptic convulsions as apoplectic, and the convul-

sions of infancy, so commonly a part of over feeding and indigestion, as epileptic, with a general disregard of the less prominent and equally important "*petit mal.*"

There is apparently little difference in the minds of the general practitioners between delusions, hallucinations and illusions, these are most important, and the distinctions should be borne in mind.

For the benefit of those who do not have a clear knowledge of these terms, may I ask the indulgence of those who have, and quote here the definitions given by Dr. Blandford?

"A delusion is a false belief in some fact which, generally speaking, personally concerns the patient, of the falsity of which he cannot be persuaded either by his own knowledge and experience, by the evidence of his senses or by the demonstration and declaration of others.

Hallucinations are false perceptions of the senses, the eye, the ear, the nose and so on. The hallucinated patient thinks he sees in the blackest darkness or hears a voice through any number of thick walls, whereas his seeing or hearing is entirely subjective, taking place altogether within his own head, without any excitation conveyed to his organs from the outer world, when, in fact, he would hear and see the same were he deaf or blind.

An illusion is also a false perception of the senses or rather mistaken perception. There is something to see and something to hear; but that which the patient thinks he sees is not the real thing, but something else."

Illusions and hallucinations are common manifestations of insanity and it is important in prognosis to distinguish between the two, particularly with regard to hallucinations of sight and hearing, the latter evidencing more extensive organic disease of the brain are found most often in chronic cases. Delusions are most important symptoms of mental disease and investigation should be directed to ascertain if the delusions are systematized or of varying character. Delusions are not always spoken about, the attitude, habits and manner of patients often indicate the existence of delusions when a reference to them would cause a suspicious patient to deny and conceal any he may have.

The tendency of an insane person to violence should be fully looked into and the questions in the application fully answered, as the hospital officers, for the protection of the patients and for the prevention of accidents, should know from the first, what must be guarded against.

The questions as to mental and nervous disease in ancestors or kinsmen, should be answered fully, it is only through the family physicians and the people at home that correct information of this kind can be obtained, and while many conceal these facts, a word of explanation may bring out what cannot be otherwise ascertained.

The general physical condition has a direct bearing on the prognosis, and it is especially desirable to know of the existence of contagious disease, cancer and tuberculosis, and it is important to know if a patient is to come from home, or from county home or jail.

These observations may seem trivial and useless to those unacquainted with the average manner of answering the questions which the law prescribes, and, too, the fault does not lie with the backwoods members of the profession, many of our best practitioners regard the questions as formal and content themselves with answering them in the most terse way, concealing the facts for the sake of brevity in the answers. The best descriptions often come from uneducated persons as we sometimes found under the law recently repealed, that the committing magistrate whose composition was faulty and spelling worse, gave a more comprehensive description of a case than the medical witness who testified before him.

In conclusion let me beg that those who have honored this with their attention, will apply it when next called to a case of this kind and will help our efforts to perfect and simplify the medical examinations and the legal processes.

Blood Metabolism.†

By E. D. Dixon Carroll, M.D., Raleigh, N C.

It is a comparatively simple matter to analyze chemically elements which are taken into the body, and also to be able to say, with some degree of certainty, the chemical form of the various waste products. It is not such a difficult matter to analyze the external secretion from the various glands of the alimentary tract, and to tell what effect each secretion has upon food stuff, at least in the chemical laboratory. We can, in many cases, say such and such elements of secretion or excretion comes from the breaking up and reformation of certain other known elements in the body.

We can sometimes say: this element brought by the blood, during the process of

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combustion in the tissues, break up into thus and so, reforms into this new waste product, which is again carried by the blood to some excretory organ and is then discharged. The exact metabolic process is often not thoroughly understood, and if the process is known the cause may be obscure. In other words we know more about Chemistry than Physiology, and more about physiology chemistry than about metabolism anywhere in the body.

But in the study of the blood our knowledge is not only in an embryonic state, but so much remains to be known about its metabolism that we scarcely claim to have anything definitely proven.

Facts apparently proven by one investigator are disproved by another equally reliable, and the knowledge we have about this subject is in no classified or tangable form.

As the blood is one-eleventh to one-fourteenth of the actual body weight and as it is the one essential part of the life of every other organ of the body, a thorough knowledge of the metabolism of the blood itself, may lead to a more complete knowledge of all vital phenomena.

We must, in studying metabolism, look upon the blood as an organ, and proceed to study the various tissues which go to form the complete whole.

One of the first difficulties which confront us in studying blood metabolism per se, is the fact that the various tissues of the blood contain so many elements which are merely being carried to some other organ, there to be oxidized or excreted, and which have absolutely nothing to do with the blood itself, as far as we know.

The blood is the vehicle of communication between all the tissues and we are not able yet to differentiate substances essential to the blood, from substances found there enroute to some other portion of the body.

It is impossible for us to say any one element is necessary to the life of the blood, which is not essential to any other living tissue.

Therefore, in this analysis, I shall endeavor to account for all the element which go to make up the entire blood. In other words, with any substance found in the blood, I will try to give you what the best authorities know of its mode of production, uses and elimination.

Blood, as seen by the eye, is an opaque, red liquid, alkaline in reactive, with a salty taste. Specific Gravity 1,055.

Three distinct and separate structures are found in living blood, Plasma, red corpuscles, and while corpuscles.

Red Corpuscles.—Red corpuscles average about 5,000,000 in men and 4,500,000 in women per. cu. mm. Increased several millions at birth. Anatomically they are biconcave disks without nuclei.

The minute structure is not known, but supposed to be an almost homogeneous colorless mass of protoplasmic material, the stroma and hæmoglobin. Red corpuscles are cells which have lost their nuclei, and represent a condition of retrogression, also protoplasm is changed. It is not at all probable that any given corpuscle lives a great while in the circulation, for the hæmoglobin of the cell is necessarily the substance from which all pigments of the body and excretions come, and as all these are constantly being formed in large quantities, the hæmoglobin must of necessity be used proportionately. Just how long the red corpuscles live is not known, neither do we know where they go to pieces. It was once supposed to take place in the spleen, but that we know does not at least take place the way it was at first represented. The large amæboid cells of the spleen were found to contain red corpuscles in various stages of disintegation. But since the amæboid movement of the cells is known to continue several hours after death, and hence after the red cells are at rest, this is now believed to be purely a post-mortem phenomena. After total extirpation of the spleen, pigment continues to be formed all over the body, just the same. From our limited knowledge at present we are bound to say there is no organ or organs for blood disintegration, but that the process takes place constantly in the blood stream, and that the products are taken to the various organs for the pigment needed.

This constant distruction implies constant reproduction. In adult life the principle organ known for producing red corpuscles is the red marrow of long bone. There is no doubt that red blood corpuscles of adult life are reproduced in bone marrow, but authorities are loathe to accept it as the only organ producing them.

Small cells resembling embryonic nucleated blood cells are found in large numbers with the marrow cells in the bone. The erythroplasts are undoubtedly transitional red blood corpuscles, but their orign is still a question. Whether they are the direct descendants of the embryonic cells, or are produced by the large marrow cells is not definitely known. These erythroblasts, at first colorless, multiply by karyokenesis, and the daughter cells eventually produce hæmoglobin in their protoplasm, thus forming nucleated red corpuscles. The nuclei are subsequently lost, either by disintegration or, more probably by extrusion, and

the newly-formed, non-nucleated red blood corpuscle forced out into the blood stream. owing to the change in position caused by the growing hæmopoietic tissue.

Hæmetopoiesis is said to take place also in the liver and spleen during embryonic life. The first blood cells in the embryo are found very early, are nucleated and have ameboid movement, and multiply by karyokenesis. Hæmoglobin develops in the cells and they loose their ameboid movement, and eventually loose their nuclei and appear as adult corpuscles at birth. They have an entirely different origin from the white corpuscles and the concensus of opinion today is they never descend from the leucocytes.

However, some of the best authorities still believe such to be the case.

Composition of the Red Corpuscles:

Oxyhemoglobin,	94.3 %
Proteid (nuclein?)	5.1 %
Lecithin,	0.4
Cholesterine, .	0.3

Hæmoglobin is now believed to be chemically held in the stroma and not merely distributed in its meshes, or possibly held in solution by solutions of Potassium. Hæmoglobin is one of the complex combined proteids. It unites with oxygen forming oxyhæmoglobin, and gives up oxygen freely forming reduced hæmoglobin. It is upon this property the value of hæmoglobin depends as an oxygen carrier in the blood. Hæmoglobin is capable of decomposition into a proteid, hæmatin or hæmochromogen and an unknown residue. Haemoglobin contains carbon, hydrogen, nitrogen, sulpher, iron and oxygen and water. The ash is almost pure iron oxide. It is the iron in the molecule which is in the state of loose chemical union with oxygen, and the quantitative determination of iron, will invariably show the value of that special haemoglobin as an oxygen carrier.

Haemoglobin is thought to be manufactured from the cell nuclei of the haemopoietic cell, and Mac Allum finds the chromatin in all nuclei contain iron and it is said to be the mother of haemoglobin, both in the embryonic and adult cell.

Iron exists in the form of a nucleo-proteid of iron-ferratin, and can be stored up as such, or as hepatin, in the liver to be used for the production of haemoglobin some future time as needed. This nucleo-proteid of iron is found as such in cooked meat, cereals and vegetables.

Iron taken by mouth as iron, is formed in the intestine into iron sulphide, thus preventing the ferratin from being used in this way.

Some authorities believe the necessary synthesis of changing ferratin into haemoglobin takes place in the spleen, some say liver, others believe it is done in the bone marrow. Iron is excreted as a phosphate in the gastric juice, also, excreted in bile, and intestinal juice. Also in urine in the form of an unknown organic compound. The nucleo-proteid of the red copulscles contain both lecithin and cholesterine, in chemical union, nothing else is definitely known about it.

Sulphur stands always in a definite relation to the iron, two molecules of iron and one of sulphur. Sulphur is probably united chemically with the proteid of the haemoglobin. One molecule of haemoglobin holds about a molecule of oxygen, but still is apparently a vacuum for carbon dioxide. Potassium chloride, sulphate and phosphate are the principle inorganic salts. Then we have the salts of sodium, calcium and magnesia.

White Blood Cells Leucocytes.—The proportion of white to red cells in the blood is about one white to every three hundred and fifty red. There are four well recognized varieties of Leucocytes. It is still a question whether they are different cells with different physiological function or whether they are merely different phases of the development of the variety of cells.

Morphologically, they are classified as follows:

1. Small round mononuclear cells with scanty cytoplasm, the so-called Lymphocytes. They comprise 25% of the number.

2. Large mononuclear leucocytes with abundant protoplasm about one per cent

3. Large polynuclear corpuscles–corpuscle, either has lobulated nucleus or the lobules have separated and are connected by protoplasmic threads. They comprise 70%.

4. Eosinophiles, just like the polynuclear except they contain numerous granules in their protoplasm which stain with acid stain. They comprise four per cent.

These all possess the power of amæboid movement except the lymphocytes; and by virtue of this property they wander from the capillary walls out into the tissues all over the body. The functions of white blood cells are not known. Many suggestions have been made as to their probable function. 1st, they protect the body from bacterial invasion, by digesting the bacteria themselves or by producing an antitoxin which destroys their product. This is called "Metschnikoff's Phagocytosis Theory." They also remove foreign debris.

2. They aid in the absorption of fats. They are seen passing from the Epithelial cells of the intestinal wall to the lacteals

with their protoplasm filled with fat granules.

They aid in the absorption of peptones.

4. They take part in the coagulation of blood by the disintegration of their nuclei, thus producing the necessary nucleo-proteid for combining with calcium salt to form thrombin.

5. They help to either produce or maintain the normal composition of plasma proteids. As the Leucocytes are the only typical cell in the blood it is held by some authorities that they are unicellular glands, the produce of their metabolism being the plasma proteids. The formation of granules in the eosinophiles suggest the idea that they are secreting cells. Leucocytes normally undergo disintegration in the blood stream, at least to a large axtent. They multply by karyokenesis in the circulation. Fleming claims, pole-corpuscles and attraction-spheres are constant constituents of leucocytes.

It is equally certain also that some at least divide by amitotic division.

The origin of leucocytes as proven by Kœlliker and J. Beard is undoubtedly the thymus gland. The reasons are as follows:

1. Leucocytes clearly rise from the thymus, as there are no others present in the body when this organ first forms such structures. These first or parent leucocytes quickly infiltrate the blood, and other lymphoid tissues rise in all probability from such migrating cells.

2. No other lymph organ is known resembles the thymus in origin and developmental history.

3. The thymus alone is sufficient to account for all the leucocytes of the body and it is an organ characteristic of true vertebrates.

4. Excepting cases of paired or metameric organs it is not usual to find the same function in any two organs of the body. The thymus is a paired metameric structure of the brachial region only. That the thymus should be the parent source of all leucocytes explains its functinal activity in young animals and its later atrophy."

Chemical analysis of Leucocytes. (Dried).

Proteid,	1.76 %
Leuco-nuclein,	68.78 %
Histon,	8.67 %
Lecithin,	7.51 %
Fat,	4.02 %
Cholesterine,	4.40 %
Glycogen,	.80 %

Leucocytes probably get their nourishment directly from the plasma, or further metabolism may take place in the lympatic glands or possibly the spleen.

Blood Platelets.—They are about one-third the size of red corpuscles, colorless, circular disks, without nuclei, which quickly undergo disintegration.

They are estimated at from 180,000 to 600,000 per cubic m. mm. Their origin, fate, and function are entirely unknown.

Some authorites believe leucocytes in the process of their disintegration, loose first their protoplasm and cell membrane, leaving the nuclei, which presists for a short time in the blood as plates, and then dissolve going to help form the plasma proteid or as waste material to be eliminated. They contain as near as can be estimated about the same chemical constituents as nuclei of leucocytes. Many believe they furnish the necessary nucleo-proteid for coagulation.

Plasma.—The liquid portion of blood is a straw-colored fluid Specific Gravity of 1,027, and is about 48% of the total quantity of blood. Same reaction and taste as blood. Contains about 80% of water. Water is absorbed directly from the alimentary canal, especially the stomach, and is found in all tissues to greater or less degree. Is excreted by kidneys, by lungs, by skin, and by bowels. Hold all other constituents in solution. Organic constituents comprise about 8% and are divided into proteid and non-proteid-portion.

First we will consider the proteid.

(A) Serum Albumins 4.25%. Three distinct ones have been isolated, but no separate physiological function has been pointed out. They are without doubt absorbed from the alimentary canal, not as serum albumins, but as peptones and proteoses. The chemical change from peptones to albumins must, therefore, take place in the cells for absorption in the nucous membrane of the stomach and intestines.

As living animal protoplasm must be nourished by proteid food, and as these serum albumins are in such abundance both in blood and lymph, it is thought they are the chief source of the necessary nitrogenous supply for the tissues all over the body. As all tissues are bathed in lymph (whether transuded or secreted by blood vessel walls) which is formed from plasma, these serum albumins come in direct contact with all living cells. There is, however, no substantial proof that this is correct.

Serum albumin, in nourishing tissues, is probably broken up into a nitrogenous and non-nitrogenus portion. The non-nitrogenous is either completely oxidized at the time into carbon dioxide and water, or as some believe, is stored up as body fat to be used at some future time. The nitrogenous portion breaks up still farther and reuniting, forms creatin, creatinine, ammonium salts,

and other products not so well understood, The sulphur of the proteid molecule goes to form the sulphate of the plasma which are finally excreted by kidneys. Paraglobulin. 3.10%. Not a simple globulin, but probably a compound of several.

Like serum albumin, its source is supposed to be proteid food from the alimentary canal. Other authorities believe it to be a product of disintegration of leucocytes, for serum exuded from clot contains more paraglobulin than pure plasma. Its uses and destination are entirely unkdown.

(C) Fibrinogen .22 to .4% in another complex globulin. Its origin and physiological function is completely unknown, except that when it is as acted upon by thombin, fibrin is the result, and upon that fact rests the spontaneous, coagulability of the blood. This, however, in only an occasional phenomana.

It has been suggested that it comes from the disintegration of leucocytes or blood plates, or from the distruction of the extruded nuclei of newly formed red blood cells. But all is conjecture. Fibrinogen can be broken up chemically, and is during coagulation, into fibrinogen proper, and a fibrinoglobulin, and a nucleo-proteid.

Some authorities claim that nucleo-proteid is found free in the blood but most believe it is found only in broken-down fibrinogen, as in clot formation, and in disintegrating nuclei.

(D) Fibrin is an insoluble proteid formed after blood is drawn or when it clots. The latest investigators believe it is formed by the action of the thrombin on the fibrinogen molecule, forming fibrin out of part of it and leaving a fibrino-globulin remaining, Thrombin we will discuss later.

Next we have the non-proteid bodies, which are again divided into the nitrogenous and non-nitrogenous.

1st. Non-nitrogenous.

A Carbohydrates. Of these we have three.

(a) *Glycogen*, which is always found in drawn blood, but authorities differ as to its mode of origin, most believe it does not exist free in plasma, but is due to disintegrating cells, as all living cells are known now to possess a glycogenic function.

(b) *An Animal Gum.* Found constantly. Source and destination unknown.

(c) *Dextrose.* Always found in plasma .12. In portal vein always marked increase and after a meal rich in carbohydrates. It has been demonstrated to be diminished in blood that has passed through a muscle.

It is absorbed strictly by the blood, by the absorption cells of the alimentary canal, and carried to the liver. Then it is combined probably with proteid, forming glycogen, which is stored in the liver, and when needed taken as dextrose in the plasma to the tissues, there to be oxidized, the ultimate products being carbon dioxide and water.

B Fats. .2 to 1% variable, glycerides of fatt yacids. Palmatin, stearin, olein, sometimes in the form of soap or combined with cholesterine. Claimed to be diminished in venous blood. Source of fats is undoubtedly chyle, and the amount may depend on actual amount of fats taken in the body. Absorbed by lacteals and carried by the lymph to blood.

However, some time after digestion, fat is less abundant and it is thought to undergo a chemical change during the passage of blood through the lymphatic glands. There is little doubt but that the fats taken into the body are completely oxidized in the tissues to carbon dioxide and water, for the production of heat and energy, and that the body fat is formed from breaking up of the carbohydrates molecule and reformation into the fat molecule. Such investigators, however, as Pettenkofer and Voit believe body fat is produced entirely from the non-nitrogenous portion of the proteid molecule, carbohydrates assisting by protecting the proteid molecule from oxidation, by being themselves oxidized for the production of heat and energy.

C Lipochrome. Coloring matter of Plasma.

D Lactic Acid. A normal constituent of plasma, especially venous blood. Origin supposed to be from the complex proteid molecule, possibly also from glycogen.

Sarcolactic acid always in the blood and combined with ammonium salts as the lactate of ammonia, which is changed into urea in the liver and excreted by the kidneys as such.

Lactic acid in tissues is said to combine with sodium hydrate driving out carbon dioxide—(Vaughan, Harley).

Then we have the non-proteid nitro-genous substance:

1. Urea .02 to .05% as proven by Schroder is formed largely by the liver. He also proved it was formed from the carbomate, carbonate and lactate of ammonia, also leucin and tyrosin, or an ammonium compound (and probably creatin). It is, therefore, the ultimate oxidation product of proteid. It is excreted by the kidneys and as urea, probably serves no purpose.

2. Uric acid, like urea, that is, one of the end products of proteid matabolism, with this difference, it is produced as we know by the metabolism of nuclein. Nuclein given by mouth is excreted as uric

acid. Like urea, it is probably formed in the liver or possibly in the spleen, and all alloxuric bases as xanthin and hypoxanthin produced in muscles or any cell metabolism probably have the same origin and destination as uric acid.

3. Creatin and creatinine largely brought to body by meats eaten, but also found in cell metabolism, especially of muscle and bone. It is excreted by kidney as creatin.

Lecithin and cholestine are found in plasma in small amount. They are waste products of all nuclei and of medulla of nerve fibers. They are excreted in bile. *Neurine and glycero phosphoric acid* is found constantly in traces. Origin-proteid ketabolism. Also Jecorin, cause and destination unknown.

Next of the organic constituents of plasma, we consider ferments:

1. A diastatic ferment which converts all carbohydrates into dextrose. Nothing else is known of it, but it is constantly found.

2. A glycolitic ferment which causes the disappearance of sugar is constanly found, and is thought at this time to be formed from the internal secretion of the pancreas. This ferment is believed to act constantly by splitting up the dextrose molecule, ready for oxidation before it reaches the tissues.

3. Harriot, in 1897, discovered a fat splitting ferment also, lipase.

4. Prothrombin.

Thrombin or fibrin ferment is the chemical union of prothrombin, (probably a nucleo-proteid from disintegration of leucocytes and blood plates) and some calcium salt.

The inorganic constiuents of plasma comprise only about .8% of the whole. The principle salt is Sodium Chloride, Carbonate of Soda ranking next. It is to the latter salt the blood owes its alkalinity, and also its power of carrying carbon-dioxide.

Then we have the chloride and sulphate of photassium-phosphate and chloride of calcium-phosphate of soda and magnesium.

All these salts are absorbed from the food taken and are held in solution by the water in the plasma and their presence enbles the plasma to hold the more complex inorganic compound in solution. Some, especially the sulphates, are products of proteid metabolism. They are excreted by the kidney.

Gases of plasma:

1st. Nitrogen about 2. 25%
2nd. Oxygen " . 25%

Both simply held in solution in plasma. Carbon dioxide besides is found combined as the carbonate and bicarbonate of soda. It is chiefly a product of oxidation of the carbohydrates and fats.

Besides these so-called known material constituents of plasma, it also contains numerous other susbtances which have never been isolated but which must exist in the healthy body. As an example: How does the internal secretion form the various ductless glands, as thyroid, adrenal, petuitary body, etc., perform their function except through the blood? Besides, as we know now, numbers of other glands have an eternal as well as external secretion. Just what those secretions do we do not know or what they are, but they are all probably carried by the blood to the plasma, and not at this time understood.

DISCUSSION.

Dr. Hays.—The paper to which we have listened is upon a subject which is too frequently neglected by the general practitioner. The paper brings our knowledge right up to date, in its completeness it leaves nothing to say by way of discussion. It has been heard with profit and pleasure by this body.

The Limitations of Surgery in the Treatment of Nervous and Mental Disease.*

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What is the legitimate role of the surgeon in neurology and mental disease? What evidence is there, discarding for the moment the forensic province of undemonstrated theory, that any good thing in positive results has come out of this nazareth? The subject is far reaching, of radical importance and of intrancing interest. I cannot hope to present it at all exhaustively. It is my purpose to read a practical clinical paper based upon personal observation and experience, and I believe that the accumulated results of more than twelve years in special work permit me the opportunity to fulfil the request with at least some degree of resultant interest. The subject, too, is one which seems appropriate to the occasion, since it unites with a common interest all of us. Differences of opinion are often dependent upon the view point. The surgeon and the neurologist represent the two extremes in medicine of daring—almost audacity—and conservatism. A military smile suggests itself. The surgeon of

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today is the outrider, the scout, the advance outpost; the neurologist holds the trenches. To you of the knife there is daring and audacity as duty, to us for the present at least that cautious conservatism born of unsolved problems. Understand me to be in no sense or degree underestimating the results obtained along neurological and alienistic lines generally, but only as regards that particular sub-field under consideration. I acknowledge second place to no specialty in medicine in the ratio of general advance during the past two decades. Clothed as he is with the reassuring bullet proof armor of asepsis, the surgeon of today has invaded almost every specialty in medicine and almost every sub-field in the territory of nervous and mental disease.

Within the past few months, I listened to a paper by a surgeon before a New York Medical society descriptive of the technique and results in some thirty odd cases of varied major and minor surgical procedures in nervous and mental affections, in about 90% of which, the writer, with an assurance which was sublime, stated that he had acted upon his own initiative and without any neurological guidance or advice whatever. I might add, with no little professional gratification, that the net results reported, even by the writer, added no laurels to his surgical fame.

Among organic nervous diseases cerebral and spinal tumor, abscess, phlebitis, malformations, congenital and acquired, and all the sequences of trauma, are claimed by the surgeon with an assurance which resents with indignation any protest or criticism and which we relinquish not so much because we confidently expect more, but for the entirely negative reason, that we can, with assurance, promise less.

Personally I believe that at least theoretically we must look to surgery for all that is to be attained in curative results in the diseases mentioned. Much remains to be done, however, in the way of prompt and accurate diagnosis and perfection of technique before even in this field surgery proves less disappointing than other measures. I have seen and reported one case of brain tumor practically cured, two, greatly and for many months relieved, two cases of sinus phlebitis cured, five of cerebral abscess cured and several sequences of trauma cured or favorably modified through surgical interference, which cases otherwise would probably have ended fatally. In certain forms of peripheral neuritis, those due to mechanical causes, surgery is obviously and alone the means to the end of cure. In certain conditions of post paralytic helplessness from contraction, as in the various talipes of poliomyelites the spastic deformities of hemiplegia and paraplegia, muscle transplantation or other plastic procedures often greatly benefit through restoration of useful functions. Many of these cases are greatly benefitted by the mechanical devices of the orthopoedist. I have seen a helpless bed-ridden paraplegic enabled to walk about at will and earn a living by the aid of an ingeniously constructed orthopoedic apparatus. All this we concede to our brothers with the knife, and still he isn't satisfied, but with rapacious and omnivorous maw, like Oliver Twist, he asks for more.

It is in the sub-field of functional and so-called reflex nervous and mental affections that we dispute the invasion of surgery. Epilepsy, Chorea, Hysteria, the various sensory and motor neuroses and the psychoses, are prominent examples in the contested territory. What has the surgeon done towards bettering the prognosis in epilepsy? I have yet to know personally of a single case cured by operative measures and have notes of 21 cases in which surgical relief has been attempted. Even in well defined focal epilepsy, dependent upon an isolated circumscribed lesion, the results of surgical aid have been grieviously disappointing. The habit of having convulsions, which constitutes epilepsy, continues even after the primary cause has been removed. To me the very idea of relief by operative interference in non-reflex epilepsy is radically faulty, if indeed it be not an example of the reductio ad absurdum. We operate to remove a focus of irritation, a lesion. The trauma of operation induces of itself this very condition. The damage from the surgeon's knife equals always and often exceeds as an irritant, the original lesion. The only possible rational excuse for surgical interference in non reflex epilepsy it seems to me must be negative. Since we cannot cure by any other means, no harm and some possible good may come from operation. Even in epilepsy apparently of unmistakable reflex etiology, surgery has proved disappointing. Let me say here that I belive firmly that epilepsy, as well as other neuroses, may have origin in a reflex cause. Two instances occur to me graphically illustrative of such failure. Mrs. G. married, age 35, no children, miscarriage at 28 attended with cervical laceration and followed by cervical stenosis with Dysmenorrhoea. For three years previous to observation, each menstrual period had been ushered in with an epileptic seizure at first of the petit and

later of the grand mal type. The attacks when I saw her were severe, and several occurred during the five days of menstrual period. The stenosis which was extreme was assumed to be etiologically related to the attacks, which assumption was corroborated apparently by the induction of attacks upon two occasions by passing a Hanks bougie. Forcible rapid dilatation was done, a skilful gynaecologist operating. The dysmenorrhoea was relieved permanently and for two months the convulsions did not recur. At the next period they returned and have at last accounts continued in equally severe form and at nearer and nearer intervals.

Case 2. D. S., male, age 40. German Hebrew, travelling salesman. Married, two children age 5 and 8, both healthy. Family history negative. Personal history that of perfect good health up to the age of 11, when he was kicked on the middle of anterior right thigh by a horse. Immediate consequences not recalled, but within a few days he had forgotten all about it and there was no local evidence whatever of injury. About six months later, on his way to school, he felt a cramp in right leg, which became first stiff, (rigid), and then began to jerk. The jerking caused him to fall, but did not extend beyond the leg, and he did not lose consciousness. Within a few minutes he felt all right and went on to school, with no after affects whatever.

Following this first seizure he had several similar attacks occurring at night and waking him up, but he did not have a true convulsion with unconsciousness until about four months later. This occurred in school and was of the typical grand mal variety. For four years thereafter he was absolutely free from all attacks. While dancing in an over-heated ball-room and after drinking three or four glasses of beer he fell to the floor in another seizure. In this attack as well as in the first, and in all subsequent attacks, he noticed first pain in the leg at the site of the injury with subjective numbness over the anterior and outer lower leg, followed by jerking of the right leg, a heavy dead feeling in the right arm tingling pain in the right face, then unconsciousness. Following these attacks he is drowsy, confused in mind and the right leg is weak and often drags and at times is powerless. Another attack occurred while skating, the skates being strapped on unusually tight. In 1880 he consulted Berger of Breslau, who advised section of the nerve presumably anterior crural. This was done by Fischer with the result that total parlysis for two weeks occurred. Patient had to use crutches for two years. During the following ten years the seizures were no less in number, though most of them were of the petit mal type. Coming to this country, he became a patient of Jacobi, who prescribed the tripple bromides, with the result that for seven years patient was free from attacks. When seen by me in '98, he was subject to frequent aura of pain in the thigh, numbness in legs, vertiginous weakness but could usually arrest further developments by getting up and walking and stamping the leg on the floor. Since 1890 he has had attacks as before except when taking the Bromides. In both these cases the reflex etiology seems indisputable, and in both it would appear from a prior reasoning that benefit if not cure was to have been expected from the procedures adopted. In both the result was wholly disappointing. I might add from experience, to these two many others, but I doubt the advantage of so dong, since the result has not varied.

And yet I believe that even here the surgeon has a legitimate field and that if the neurologist be prompt enough in diagnosis and surgeon equally prompt in operating, the benefit would be proportionately greater.

The primary cause of an epilepsy, reflex, organic or toxic, is of less importance in prognosis or treatment in a direct ratio with the duration of the disease. There can be no arbitrary time limit, but in an epilepsy of six or twelve months standing, the cause is relatively immaterial as affecting either prognosis or treatment.

In chorea the equation of value in estimating different remedial measures is somewhat obscured by the fact that the disease is in many instances self limited. We are liable to construe as propter hoc, what in reality has been post hoc only. Not all cases of Chorea (and I refer exclusively to non-organic Choreas) are self limited however, and it should not be forgttten that the most striking characteristic of the disease history is a tendency to recur. Nor should the fact be overlooked that while Chorea per se may be a simple thing, it may involve colaterally and indirectly grave and disastrous consequences to the victim. In idiopathic or simple Chorea, the treatment is almost statutory in its fixed exactness. In reflex Chorea which means all the way from less than 1% in the opinions of neurologists to 100% in the opinions of certain operating oculists, the routine of treatment is less arbitrary. I have records of 76 cases of Chorea examined by competent oculists in which defects due to muscular insufficiency and

other causes were found and glasses and other opthalmological measures, including tenotomy recommended and not one instance in which a cure could be legitimately claimed for either glasses or tenotomies. I do not mean to say that these measures were not of adjuvant value. On the contrary, I believe that occasionally they served a valuable purpose in removing a secondary cause. In one case of Chorea a rhinological friend confidently promised that the removal of a nasal polypus would cure the case. It took six weeks of treatment with Fowlers' solution to remove the after effects of the operation.

In another case, a boy of nine was brought to my clinic with a most violent and intense chorea. He could not stand or talk or use his limbs at all. It was of fulminant onset. I found a redundant prepuce inflamed and bulging with purulent secretion. Dr. Bodine operated for me quite successfully. There was no improvement in a week in the Chorea, but within the next four or five weeks under Fowler's solution of Arsenic the Chorea disappeared. Possibly, and indeed probably, this result would not have been attained independently of the operation which certainly removed an aggravating if not a primary cause.

Most of the sensory neuroses, the neuralgiae, the tics, the pseudocoxalgias and paresthesiae are due to blood states or dyscrasiae—to taxaemiae quite often. Many of them are varieties of neuritis in different degrees. Painful tic of the face is at times exceedingly intractable resisting all ordinary and even extraordinary therapeutic resources. In such cases the surgeon is considered and consulted. Section of the nerve or the more radical operation upon the Gasserian Ganglion is advised.

With regard to the value of either of these operations, I confess to but little personal experience. So vehement has been my opposition on theoretical grounds to either procedure that I can recall but one instance in which in sheer desperation I gave a reluctant consent. The patient, Mr. H., age 61, an army veteran, developed inflammatory rheumatism while serving in the Federal Army. He suffered at the the time from facial neuralgia. For twenty years thereafter at occasional intervals the neuralgia returned. In 1891 he had an unusually severe attack, during which the tic or spasm first developed. This attack lasted some two months, and during this time his only relief was from large doses of morphia. In '92, he had another six weeks' siege. In 1893 two attacks. Section of the superior branch of the 5th was done, with the result that all branches developed a frenzied spasm and pain, except the superior, which was paralysed. He was continually under the influence of morphia for four months, when suddenly all pain and spasm ceased, remaining absent for nearly a year. Following a cold or perhaps the grip, the pain and tic reappeared in the fall of '94. The patient who had become intensely suicidal begged for any relief regardless of the risk. Hartley's operation was decided upon. The patient survived. The pain still continues and as a result of the operation certain mental changes subsequently developed which have resulted in a state of practical dementia.

I have within the past year succeeded in relieving two patients with painful tic in most aggravated form, both of whom seriously contemplated upon the advice of attending physicians radical surgical measures. In both cases complete relief which continues to this day was obtained by means of strychnine given hypodermically in heroic and progressive doses.

Spasmodic torticollis is another disputed field. So frequent have been the disappointments of the surgeon in obtaining beneficial results here as to leave it almost undisputed neurological territory. My personal experience includes three cases, in only one of which did benefit occur.

In this day of materialism affecting all alike, both surgeon and alienist find a kindred impulse in the desire to bring the affections of the mind down to a tangible materialistic basis. Especially is this the trend of alienistic investigation to-day. Much of the slow progress attained in the treatment of the insanities is believed to be due to the persistence of the traditional conception that insanity was from the Gods, and was outside therefore of the sphere of man—medical help. Behind the Jaundice was the cirrhotic liver behind and explaning the dropsy was the nephritis but behind the delusion of the unpardonable sin was what? Until recently we did not know at all. Until recently we did appreciate the significance of cause and effect in mental disease; that gall stones, for example, might be behind and explain a melas-chole (black bile;) or that toxines and ptomanies might induce disturbance of the psychic cell, or that reflex irritation from periphery might disturb mental equilibrium.

Mrs. A., aged 41, came under my care for a typical melancholia. She had numerous visceral delusions, among others, the belief that her stomach was rotton and that her intestines were full of holes. Obsti-

nate constipation necessitated mechanical relief, with the result that some twenty hard scabylous masses were removed forcibly per rectum, the visceral delusion (?) disappearing almost simultaneously and the patient subsequeutly making a good recovery.

J. S. Male, aged 48 was seen by me in consultation with Dr. E. Y. Hill, of New York. The patient had melancholia of the stuporous type. He had the delusion of poisoned food and had refused all food for several days. Examination revealed a most horrible condition of the mouth from decayed teeth and neglect of mouth hygiene. A visit to the dentist with aseptic washes resulted in the immediate disappearence of this particular delusion. This patient also I believe made later a good recovery.

Mr. C. Male, aged 37, referred to me by Dr. Dalton, of Winston, N. C was affected with melancholia, all the cardinal symptoms being present, gloomy and unreasonable depression intense exaggerated introspection paralysed objective consciousness insomnia post cervical ache, and tendency to suicide, etc. The patinent complained of more or less constant tenderness and sometimes pain oves the right Hypochondriac region. He also gave a history of two attacks acutely severe of what he had been told was bilious colic. Examination revealed suspicious but somewhat indefinite physical signs of an obstructed gall duct. I referred the case to Dr. Tuttle, of New York who confirmed the local findings. An exploratory operation was done, revealing a gall duct almost completely occluded from stenosis, the cause, however, not being detreminable from local conditions. There were no gall stones and no malignant disease. The melancholia cleared up within a few weeks thereafter, but within six months had returned and though less marked it still persists.

Mr. DeW. age 35 was refered to me by Dr. Barringer, of New York, I found him affected with an hallucinatory insanity of the paronoiac type. Among other hallucinations, all people upon whom he looked turned at once bright red—every one who looked at him did so with design—two people talking on the streets as he passed were talking of him. He could not sleep, the disturbance from voices keeping him awake. He had no sexual power a firm belief, although never in his life had he even attempted sexual intercourse. Other symptoms directed attention to the genitals and examination showed a redundant prepuce with the entire penis studded with cheesy masses. So intense was the irritation that bleeding from the surface could be readily induced. Circumcision was done by Dr. Currier. It is now nearly two months since the operation, rather to soon for final conclusion, but so far there has been no change whatever for the better.

Just one case more and I am done. I had not purposely reserved this case as a dramatic climax. It will nevertheless fittingly subserve that end, Mrs. C., age 29 native of Tennessee, married and a divorcee, of robust vigorous physique, a superb type of the feminine human animal. When seen by me she presented all the conditions characteristic of an exaggerated nymphomania. She lay in bed, the nurse and the attending physician as well as the writer being in the room, in an erythristic ecstasy masturbating continuously except when physically restrained. This had been her condition for several weeks. The antecedent history was as follow: She had married a degenerate five years previously, from whom she had obtained a divorce a year or two latter. Soon after she developed symptoms of hystero-mania with sexual delusions. A gynecologist in her native city removed the ovaries. She improved but subsequently suffered a relapse, consulted another gynaecologist and lost her uterus. Again she improved but again the original trouble recurred, even worse than before. A third gynaecologist was consulted, who did a Baker Brown excision of the clitoris; exactly the same result followed, and for the fourth time she was operated upon. This last operation, done by one of the most eminent gynaecologists in New York, consisted in the removal of the cervix left from the former hysterectomy. Six months later I saw her. I did not hear from the patient after consultation, until two years later when upon answering an appointment to commit to a private asylum an insane patient I found to my surprise my patient of two years before. She was duly committed, again recovered, this time without the knife, and has since married and thanks to this last therapeutic proceedure has remained well ever since.

Briefly summarized my personal observation and experience (I have studiously and with design avoided colloborated statistics and references to literature) leads me to the following conclusions:

In abscess of the brain and sinus phlebitis and in traumatic hemorrhage surgical procedure is not only legitimate but is imperatively demanded and affords the only rational hope of cure.

In tumors of the brain and in imbecility due to cranial deformity as in microcephalus surgery has a legitimate field and while the

results attained have not been particularly gratifying, no other remedial measures have resulted in any benefit whatever.

Paralytic deformities talipses and contractions can be successfully treated by surgical procedure alone. Loss of function may be often completely relieved and useful action restored by muscle transplatation or section.

Compression myelitis from trauma or other cause demands surgical treatment. Laminectomy is a legitimate procedure as demonstrated in the results attained by Dawbarn, Loyd, McBurney and others.

In the treatment of the neuroses intrinsic or reflex surgery is never a factor of any assured value. It may in exceptional instances prove a valuable adjuvant but should never be relied upon alone with any assurance whatever. In non reflex epilepsy the only possible excuse for surgical interference is that the patient can not be made worse by anything. In reflex epilepry and in other neuroses due to or aggravated by any ascertained reflex cause, surgical removal of that cause is legitimate, but that surgeon is wise who promises nothing.

Among sensory and motor neuroses surgery in the majority of instances is a desperate experiment at best and often a crime.

The domain of the surgeon in the treatment of the psychoses I believe to be as yet shrouded in uncertainty. Cautious discriminating experimentation should constitute the guiding and dominant influence. The ratio of failures to success as measured by the records to date is as ten to one, and yet I believe that the future through added knowledge chiefly neurological will show a legitimate and an extensive field for the surgeon here.

DISCUSSION.

Dr. I. M. Taylor.—On last Friday night I heard three of my patients discussing the curative merits of three institutions. They had been in three different hospitals. The result is that three of them are under my care, two of them permanently I think. I have formulated in my own mind that it is much easier to carry to the asylums by injudicious surgery than to get them out after they are once there.

"Robinson's Lime Juice and Pepsin" is an excellent remedy in the gastric derangments partiularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See page vi, this issue). See remarks on their Arom. Fluid Pepsin also.

Two Interesting Surgical Cases.

I. Extensive Necrosis of Inferior Maxilla; Operation; Recovery.

II. Extra-Uterine Pregnancy, with Long-Retained, Full-Term, Dead Fœtus; Laparotomy; Death.

By A. W. Knox, M.D., Raleigh, N. C.

I. *Necrosis of Inferior Maxilla.*—The patient, Robert Martin, a colored barber, about 35 years old, was admitted to the Leonard Medical School Hospital, at Raleigh, on Feb. 24th, 1900—sent to me by Dr. A. M. Moore, colored, of Durham. Family and personal history good; no history of syphilis, nor of phosphorus poisoning.

About 3 or 4 weeks prior to admission, he had a small abscess of the gum, about the right lower, second bicuspid (or second molar) tooth, and went to a dentist, Dr. I. N. Carr, of Durham, *who advised extraction of the tooth.* Patient refused and Dr. Carr evacuated the abscess, treated it with pyrozone and warned patient of the danger of neglecting it, impressing upon him the necessity of returning for treatment until the abscess should be cured. [I here introduce Dr. Carr's written statement of these facts to forestall any possible misconception of his relations with the case, and to disclaim any unjust implication of *his responsibility* for the man's unfortunate experience of danger and suffering.]

DEAR DR. KNOX:—Robert Martin called at my office for the first time about February 1st, 1900. I found him suffering from an abscessed inferior molar tooth on the right side. I advised its extraction, but he was timid, and refused to have the operation performed, so in order to give him relief, I opened into the pulp chamber, and root canals, washing them out with pyrozone, H_2O_2. He expressed himself as greatly relieved, and left my office. I did not see him again for two or three days, when he presented himself again, with jaw badly swollen, and evidence of a large amount of pus present. I again advised extraction, but the tooth and jaw being quite sore, he refused. I then opened through the gum tissue, and evacuated the pus. I never saw him afterwards, until he had been treated by Dr. Moore, (colored) of Durham. Realizing the possible danger of necrosis, I warned him of the mistake he was making in putting off the operation. I write you this because I feel that it is due me, that you should know of my connection with the case, Very truly yours,

ISAAC N. CARR.

The patient ignored the advice and did not return. The trouble increased rapidly, and when he came to me on February 24th, the whole anterior half of the body of the lower jaw was acutely inflamed, the chin enormously thickened and elongated, so that his face had the aspect of being made up chiefly of *lower jaw and chin*—a picture that would have been ludicrous but for his pitiful suffering. The soft parts under the jaw and upper part of the neck were greatly swollen, œdematous and boggy, with offensive pus dripping from the open ends of two drainage tubes, and the patient was emaciated and very feeble, the personification of wretchedness and misery.

The examination of his urine showed a sp. gr. of 1012, albumen in abundance, and hyaline and granular casts. Heart and lungs normal.

After two weeks of treatment addressed to the renal condition, and the use of tonics and careful feeding, I operated under *chloroform*, on March 9th, 1900. My incision ran along the inferior margin of the lower jaw, from a point opposite the first *left* molar tooth to a corresponding point on the right side, and was located, as much as possible, towards its *inner* aspect, in order to conceal the resultant scar as well as might be. This incision went *to the bone* throughout its entire length, cutting through the periosteum, which was lifted, with the elevator, from both the inner and outer aspects of the bone—two fibrous, hanging curtains, with a triangular interval between them—in the hope of securing, thereby, the formation of new bone in place of the segments to be removed.

I found the entire thickness of the body of the bone honeycombed with pus, and necrosed, from about the anterior molar tooth, on each side, to near the mental foramen. Indeed, so fragile was it, that the *very slight* rocking force, required to pull the first molar tooth on either side—both of which were *very loose—fractured* the bone, at both of the points indicated, entirely through its body.

In extracting the loose, dead fragments with forceps, quite a quantity of bone was removed,—one piece, on the left side, being at least one inch and a half in length (measuring from behind forward) of the entire thickness of the jaw, and showing the tooth-fang-sockets in two places, and the commencing curve of the chin—but honeycombed and eaten out in a remarkable manner.

The whole under surface of the floor of the mouth—from chin to larynx, nearly—was traversed in every direction with sinuses and filled with pus-pouches. These were freely opened up and curetted—the resultant large cavity thoroughly treated with bichloride solution, followed by free irrigation with hot sterile water, and firmly packed with iodoform gauze-strips, and the anterior three-fourths of the horse-shoe-shaped incision closed with deep and superficial sutures of silk-worm gut. The incision was left *open* for about 1½ inch at each of its posterior extremities, for the exit of gauze-drains on each side of the jaw—these gauze drains passing clear through, from left to right, in order to secure *good* drainage.

The *chin*-segment of the bone (with six teeth imbedded in it)—though bereft of its main source of nutrition by the destruction of both inferior dental arteries, resulting from necrosis of the *entire thickness* of the jaw *bilaterally*—I left *in situ*, for the present, despite its doubtful future, in order to give some degree of *firmness* to the chin and preserve somewhat of the normal outline and horse-shoe-curve of the two periosteal curtains, in the hope of securing—between them—a regrowth of bone, wherewith to fill the inch-and-a-half gaps on either side of the jaw; and also, in part, to give some firm point of resistance to the bandage-pressure relied upon to control the free blood-ooze afterwards.

The *sutured* portion of the big flaps healed by primary union, and the large cavity left under the floor of the mouth after curetting the sinuses and pus-pockets, contracted down, in the course of a few weeks, to very *small* sinuses—the *left* one healing perfectly at length, but the *right* one retaining a pouting, teat-like granulation-covered orifice, from which I extracted, after several weeks more, two pieces of dead bone, about 3-4 inch long by 1-4 and 1-2 inch wide, respectively. This sinus then quickly healed and closed, and new bone was evidently filling the old gaps on both sides of the jaw.

Then, later on, a pus sinus, leading to dead bone in the chin-piece, opened on the skin-surface of the chin, and also within the mouth under the tongue. I incised the soft parts freely, chiselled into the chin-bone, and thoroughly curetted the cavity in the same—and it healed. The chin-sinus recurred twice more, and the same chiselling and curetting of the bone were twice repeated at intervals of several months.

Meanwhile, the *left* side of the jaw-bone—apparently including the *ramus* also—began to swell and grow tender again, and the whole left side of the face became greatly enlarged and œdematous, with acute suffering, and the old sinus reopened. On June 27th, 1900, I again incised the soft parts on this side, in the line of the old ci-

catrix, after assuring myself of the presence of dead bone by means of the probe, cut through the involucrum of new bone, which had formed since the first operation, and removed from its interior a sequestrum about 1 3-4 inch long by 7-8 inch broad (at its widest point). Into the cavity from which this sequestrum was extracted, the index finger easily passed, for an inch or more, in the direction of the axis of the ramus. I irrigated this cavity freely with bichloride solution (1 to 1,000) and then with sterile normal salt solution, packed with iodoform gauze-strips, and had the satisfaction of witnessing a rapid and perfect closure of the bone-cavity and permanent healing of the soft parts within the next six or eight weeks.

About the middle of December, 1900, the bone of the chin gave trouble again—this time on its under and posterior surface; and again the probe revealed dead bone. Once more I freely incised the soft parts, curetted the, this time, shallow, *superficially*—necrosed surface—and perfect healing followed.

I saw him some time in March, 1901, when he was in Raleigh, and there was then no evidence of disease of the jaw, though his facial aspect was suggestive of a battle-scarred veteran.

At the time of the first operation, in March, 1900, I was greatly tempted to take away the entire anterior four-fifths of the *body* of the lower jaw on both sides, *including* the bone of the chin; but for the reasons stated in the earlier part of this report, I left the chin-bone, with its six teeth, and the result justifies that piece of conservatism. The chin-bone remains intact, and he says that its teeth have a natural feeling, though they were numb and felt like they were dead for some weeks after the first operation. It is interesting to note, that, despite the complete obliteration of the inferior dental artery and nerve—*on each side*—for at least an inch and a half of their length, that the chin-bone and its six teeth still remain, and that the teeth now seem alive and sound. It seems a reasonable explanation, to suppose that this portion of the bone must have had its vitality maintained—albeit at quite a low ebb—by a sort of imbibition of nutriment from the surrounding soft parts and possibly, also, the development of new capillaries distributed on its surface and penetrating the bone itself.

Another compensation to the man for what he has so patiently endured, is to be found in the interesting fact, that the great gaps lost by the total destruction and removal of the entire thickness of the jaw-bone, *on both sides*, from molar to mental foramen, have been refilled and perfectly solidified by the growth of solid and healthy new bone. And I am glad to learn from my Dentist friend, Dr. D. E. Everitt. of Raleigh, to whom both the patient and I are indebted for much helpful advice and assistance, that, in his opinion, the missing teeth can be supplied by artificial ones. I am fortunate in being able to present the patient for your inspection.

This case illustrates how *great* a trouble may come from neglect of a *seemingly small* matter in the beginning, and also, how careful we should be in misjudging the responsibility of another for a bad condition, wholly due to the patient's own neglect of his dentist's advice.

I am glad to be able to say that the man himself admitted to me freely that Dr. Carr warned him of the danger of his course and was in nowise responsible for his condition; that he, himself, dreading the pain of extraction, took his chances and was himself alone to blame.

II. *Extra-Uterine Pregnancy, with long-retained, Full-Term Dead Foetus.*—Clara Jones, colored; 42; married; occupation, washerwoman; nine children; oldest 27; youngest 5 2-3 years old; all confinements normal; menses normal. Always well till February, 1899, when she was taken suddenly with severe pain *all over* the abdomen, which confined her to bed about two weeks with fever and sweats. She left the bed in two weeks; but about a fortnight later was again stricken with sudden severe pain *all over the abdomen*, which kept her in bed six weeks, with the same symptoms, but more severe than those of the first attack. During this *second* sickness she noticed a swelling of the abdomen, which she thought was due to "the misery inside." She does not remember that she felt any tumor or lump.

Former duration of menses 4 1-2 to 5 days, and not profuse; during the past two years, six to eight days, and *very profuse* but never amounting to menorrhagia. No clots; duration of intervals normal. Appetite and digestion good; bowels regular; last period began Sunday, Feb. 24th, and ended Friday, March 1st. Nutrition of body good—but not fleshy.

Physical Examination.—An ovoid, symmetrical tumor stands prominently forward, centrally located in lower abdominal region, about the size of the pregnant uterus at seven months, but *projecting more* than such a uterus. Its surface is as smooth as the uterine surface, but the tumor is somewhat flattened from before backward. No nodules nor irregular projections from the surface, but the whole mass feels as hard

and resistant as uterine fibroma, suggestive of a myomatous uterus. Through the rather thin abdominal wall the fingers detect a rounded, cylindrical, pencil-shaped hard substance, like the round ligament on the anterior superior uterine surface, running almost horrizontally. No fluctuation. Mobility of tumor limited—both antero-posteriorly and laterally—suggesting adhesions.

Vaginal Examination.—Cervix lacerated on right side and patulous, admitting first phalanx of index finger; uterus anteflexed; probe passes 2 3-4 inches in antero-latero-flexion, a little to the *left*. Tumor felt in right, upper vaginal fornix and dipding down into pelvis, conveying to the sense of touch the idea of its being attached by a *short* pedicle to the *right* side of uterus and *adherent* to it, with limited, but perceptible, motion between the two. The uterus seems to have a mobility independent of the tumor, though closely attached to it. No fluctuation nor elastic feel in the tumor *per vaginam*, but it is hard like a fibroid. One small fibroid nodule on anterior lip of cervix.

Rectal Examination.—Tumor flattened, posteriorly; otherwise, indications same as developed by *vaginal* touch.

Probable Diagnosis.—Fibroma of the right ovary—*possibly*, ovarian cyst, *tightly filled*, and adherent.

Operation, March 19th, under either, assisted by Drs. McKee, H. A. Royster and Henry Tucker. Median incision, about 4 inches long, below umbilicus. Tumor apparently solid, with an obscurely-elastic feel at different points here and there, and continuous dense adhesions to abdominal wall everywhere within reach of the fingers. Enlarged incision upwards to a length of about 8 inches, and separated adhesions with the fingers—upwards, laterally and downwards—sufficiently to expose the tumor's anterior surface.

A long loop of intestine (arranged as an inverted horse-shoe) and its mesentery were spread out over, and densely adherent to, the right and left and antero-superior surfaces of the tumor—*so* densely so, that they could not be dissected off without grave risk of rupturing them. The omentum, also, was tightly adherent in many places, and had to be tied off and cut away at five or six different points.

The adhesions were finally separated by dissecting off, with the end of a grooved director, a large part—practically, nearly the whole—of the outer fibrous coat of the tumor itself, leaving it attached to intestine and omentum, and then paring away the redundant fringe of the fibrous coat and applying catgut ligatures wherever needed. During this dissection, the sac of the tumor was punctured on its right antero-lateral aspect, and a drachm or two of yellow-greenish, orderless pus oozed out. This rent was quickly stopped with a gauze-pad, and the blunt trocar pushed into it, evacuating a small amount—perhaps 5 or 6 ounces—of pus, which then ceased to flow. I then thought I was dealing with a suppurating multilocular *ovarian cyst*, but not so.

The trocar was pushed in various directions within the sac, in the expectation of puncturing other pus-sacs and so reducing the size of the tumor; but the trocar refused to puncture the irregular, hard tissues in the cyst's interior, and so I proceeded with the careful dissection of the outer fibrous coat of the tumor. In the course of this dissection the sac-wall was unavoidably punctured at 3 or 4 other points, whence oozed small streams of the same odorlesss pus, some of it, in spite of all my efforts contaminating the intestinal surfaces and peritoneal cavity. But each successive puncture was quickly stopped with gauze-pads and clamped, and the dissection proceeded with as rapidly as possible, until the fibrous sheath of tumor was traced down to the tumor's pedicle, at the right uterine cornu, which was tied in two segments with a double-silk ligature, and the tumor cut away and removed. The raw edge of the stump was closed with continuous catgut suture and dropped.

Adherent to the inner posterior aspect of right side of tumor, was a purplish, pencil-shaped sac, about 1 1-2 inch long, probably the remains of the right ovary (as nothing else corresponding to the right ovary was discovered), but resembling more a portion of fallopian tube and containing a grumous, blackish fluid.

The pelvis was well sponged out with dry gauze, the abdominal cavity flushed and cleansed with hot normal salt solution, and the incision closed *without drainage*. The usual normal salt solution enema was given before leaving the table.

On the day after operation patient developed decided tympanites and was much prostrated with a rapid and very feeble pulse, and infusion of normal salt solution beneath each breast (about a quart and a half in all) was resorted to with good results so far as fuller pulse and better strength were concerned. The 5 grains calomel powder dry on tongue at midnight of the day of operation and 3i doses of epsom salts next morning, repeated every 2 hours till six doses failing to move the bowels, the high enema of glycerine, epsom salts, turpentine and water was given and repeated every 4 hours twice, with the result of free-

ly moving the bowels; and the tympany disappeared, leaving the abdomen flat and soft.

During the first four days the temperature ranged between 98⅘ deg. and 101, and her general condition improved to such a degree as to warrant the hope of recovery; but on the 6th day (March 25th) a chill occurred, with a temperature of 106⅕ per rectum, and a localized peritonitis low down in left hypogastrium developed. Temperature and pulse ranged high for two days more, but on the 8th day after operation (March 27th), the pulse dropped to 120 and the temperature declined to 101, and again there seemed a reasonable hope of recovery for two days; but on the tenth day (March 29th) she became delirious, strength failed rapidly, and she died on March 30th at 11 P. M,, eleven days and a half from the date of operation.

Examination of the tumor, after its removal, showed the presence within the sac of a full grown, dead foetus, located breech downwards, with the placenta lying on top of its head, and its body in a state of good preservation, yet the bones of the vertex were separated and the brain disorganized and semi-fluid, with abundant pus oozing from the whole interior of the sac and from the interior of cranial cavity.

One striking feature of this case is, that, although this foetus came to full term, the mother seems never to have suspected that she was pregnant; though statistics show that the sense of "quickening," as perceived by the mother, is quite commonly absent. Another feature is, the lesson it impresses of the uncertainties of absolute diagnosis in abdominal tumors, *before operation*.

The Problem of Typhoid Fever in the Rural Districts of North Carolina.*

By Dr. H. W. Lewis, Jackson, N. C.

I have no apology to offer for bringing the subject matter of this paper before you. I have entitled a problem, not because I can hope to solve it, for it will never be solved by the efforts of one man. It will never be solved by medical legislation, or the giving of pills and potions nor the curing of individuals. It can only be solved by a long campaign of sanitary education among the people—the great unwashed of North Carolina. "In order that men may appreciate their rights (said the great jurist, Blackstone) they must know them"; in order that men may live healthfully they must know how. Whose duty is it to teach them this? Whose, if not the duty of the men who sit in the places of those, who in that Elder Day, protected This People, from incompetency in their medical advisers, by the establishment of the State Board of Examiners. Much of what I will say in this brief resume is matter of common knowledge to you all, to make pretense here of advancing anything new or orginal on this much written about, and discussed subject, would be practicing a fraud. To take advantage of this occasion, to lecture or criticize my brother physician, would be in me nothing more than presumption. I shall attempt to discuss the subject- of Typhoid Fever, only in its relation to State medicine.

The Crowning Glory of the last Century was the development of preventive medicine, the labors of Pasteur, Koch, Klebs, Laverans and a host of others, both in Europe and America, were not in vain. Sanitary Science is now doing its work, and it is good. The way for the practical Sanatarian is being blazed, and that so plainly that he who runneth may see.

Object lessons of the efficacy of modern preventive medicine are not wanting, and some are very striking. I need not mention them, suffice it to say, that in the present light of our knowledge, the question, Can Typhoid Fever be prevented? must be answered unhesitatingly in the affirmative. The means whereby this can be done is ancient history, and comes down to us from Moses—ante-dating the Christian Era—by more than fourteen hundred years.

Our modern method of accomplishment must differ, of course, from that of the Mosaic Era, but the precept is the same. The observance of personal and domestic hygiene, the cleaning of the soil on which we reside, and the purification of our drinking water. This was the law unto the whole Jewish People—not alone to the dwellers in cities.

It would now be regarded simply as a statute of perfection and could not be enforced. To-day a sanitary cordon watches argos eyed, over our borders and seaports to keep out cholera, yellow fever and the plague. The large cities are spending thousands to complete their sanitary arrangements for preventing disease. In the meantime our rural districts are without any adequate protection, and that unwelcome guest, Typhoid Fever, is a not unfrequent visitor in nearly every country home.

"The essential factor in the wide-spread prevalence of typhoid fever in the country

*Read before the North Carolina Medical Society, at Durham, N. C.

districts of the United States (says Osler) (1) is due to the absence of anything like efficient rural sanitation," yet God made the country and Man the town. Still we are confronted in this enlightened age with the strange fact, that the most healthful residence is not in the country, but in the town, where man is using modern sanitary measures to protect himself from infectious disease. Is there any evidence of this? Glance at an investigation recently made in Canada, (2) where, out of a thousand wells examined in the country districts, only two hundred and fifty were found unpolluted. Has Tpphoid Fever been prevalent in the rural districts of North Carolina? Unfortunately there is no data from which to form a correct estimate, as the country doctor will not report to the health officer.

Personally, I believe it has been more prevalent in the Seaboard and Piedmont sections, in proportion to population, than in any of the larger eities, Philadelphia not excepted. Verily, we have been calling the disease by a variety of names, such as Typho-Malarial, Continued Fever, and Continued Malarial Fever. Some have contended that there is a third form of Fever, peculiar to the Middle and Eastern part of the State. Many of us remember The Paper by Dr. Hays, (3) Chairman of the Section on Practice, in 1899; also Dr. Parrot's (4) paper for the annual debate at Tarboro last May. It is rather more than a coincidence, that both of these gentlemen selected for your consideration the same subject—"The Continued Fever of North Carolina" and that they both combatted the idea of this Third Form. These papers furnished evidence not alone of the frequency of typhoid among us, but also of the firm hold this idea of a third form of fever had taken upon the minds of some of our physicians. Calling the disease, Weller like, by any name, except the true one, this fetish of a third form of fever and the non-reporting of cases to the health officer, has not only made it impossible to form an estimate of the number of typhoid cases we have had, but it has also been most favorable to the spread of the disease. Does any one doubt that under this pernicious practice (no diagnosis made, no sanitary precautions taken), that we have had a very large number of cases among our rural population? Must not a vast number of nidi resulted from this practice, which will prove a fruitful source of infection in the future? I admit that there are oft-times diagnostic difficulties (especially to the country doctor in malarious sections), in determining the nature of fever. I know that many typical and very mild cases are seen. It is these mild cases, particularly the ambulant ones, that are the most dangerous. Thorne, (5) of Caterham, Eng., traced the origin of over 300 cases to one individual, who was not sick in bed, but a genuine walking case of typhoid fever. Sternberg (6) says: "Typhoid Fever among our troops in camp during the Spanish-American war was due to the very general failure on the part of any surgeons to recognize the disease in its milder forms and early stages." "Army Surgeons correctly diagnosed, (says Reed (7) and others in their recent report), about one-half the cases of typhoid fever occurring in our army during the Spanish-American war, but in recognizing only one-half, they probably did better than the average physician throughout the country, does in his private practice." In this connection it is well to remember the advice of Osler, (8) "Learn to suspect Typhoid, and not Malaria, particularly if it resist quinine." "Instead of the Anglo-Saxon method of procedure, which is to assume innocence until proven guilty, adopt the Gallic usage and consider every doubtful case as guilty, that is as Typhoid Fever, until the contrary be clearly demonstrated." This advice is most valuable and should be followed. I know how loath we are to assume the presence of anything, so serious as typhoid fever. I know how reluctant we are to alarm the friends and family. It is our duty, however, in the doubtful case, to do this very thing, and to institute sanitary precautions at once. Should it prove not to be typhoid, no harm will have been done, and the family will have received a much needed lesson in practical sanitation. Returning to the prevalence of the disease in our rural districts, allow me to repeat, that while no data exist, on which to base an exact estimate, still its frequency in the past must be admitted. This is indicated both by such published evidence as we have, and the experience of nearly every practitioner in our Seaboard and Piedmont Sections. The cause of said frequency has been due primarily to the neglect of excreta disinfection, consequent upon faulty or late diagnoses, secondarily, open well infection and the common house fly.

1Article in New York Sun, Jan. 27th, 1901.
2Basemore, Sanitarian, Aug., 1900.
3Trans. N. C. State Society, 1899.
4 " " " " 1900.

5Plunket Sanitarian, July, 1900.
6Sanitary Lessons of the War, Am. Med. Association, June, 1899.

7Reed, Vaughn and Shakespeare report to Surgeon, U. S. 1901.
8Address before New York State Society, 1899.

Of late our knowledge of the infectivity of the excreta in typhoid fever has been enlarged by finding in a large proportion of cases the bacillus typhosus in the urine. Thus M. W. Richardson, (9) in examining the urine of 66 patients in the early stages of convalescence from enteric fever, found the bacillus in 14. He had previously found it in the urine of 9 out of 38 examined in the acute stages of the disease. At present it is estimatd that in about 25 per cent. of cases the bacillus is present in the urine. The evidence on this point is conclusive that the urine may remain infected for an indefinite length of time, the patient may be discharged as cured and go about his usual avocations, yet his bladder remains a perfect arsenal of typhoid bacilli.

Richardson (9) mentions an extreme case illustrating this. A man was admitted to the Johns Hopkins Hospital who 5 years before had an attack of typhoid fever, since when he had suffered with cystitis. From the urine of this patient a pure culture of the bacillus typhosus was obtained. This discovery of the infectiveness of the urine in the disease adds greatly to the possibility of its spread, and suggests, of course, careful examination and disinfection of this excretion before the patient is discharged.

It has been found that urotropin given three times daily in ten grain doses will so disinfect the urine that bacillus of Eberth will be destroyed

Of the various media whereby the bacillus may be conveyed to man water as of old holds the first place, but the ubiquitous house fly is now known to be a close second. I shall only notice these two, as they are those which operate mostly for the spread of the disease, in the rual districts.

The common house fly (Musca Domesticata), first came prominently into evidence as a carrier of typhoid bacilli during the Spanish-American war, they were then shown to be very active agents in infecting food and drink, where they first had access to undisinfected excreta. They can carry the bacillus in two ways, the fecal matter may adhere to the fly and be mechanically transported, or the fly having fed on typhoid excreta may carry the bacillus in his digestive organs and deposited it with his excrement the so-called fly specs. We can now see they must have been from time immorial much concerned in the spread of this disease where the privies were open, and both disinfection and removal of excreta neglected. Thus Dr. Boobbyer (10) has shown that in Nottingham, Eng., enteric fever is more frequent among those having open privies or water closets.

An investigation made in Canada has already been mentioned, where out of a thousand wells examined in the farming districts, only 25 per cent. were found to contain pure water. We have no means of knowing the relative number of wells which have been infected in this State, as examination of suspected drinking water (except in rare instances) has been neglected.

When we consider, however, the continuous habitation of our rustic population in one place and their general disregard of filth accumulation. When we reflect upon the number of country houses in which there have been cases of typhoid, or possibly that Third Form of Fever, with the undisinfected dejecta thrown out upon or buried in the soil, we must conclude that the number of infected wells in North Carolina has been very large.

Typhoid infection of wells in the country districts, generally occur in one of three ways:

1. The excreta being thrown upon the surface above the drainage side of the well may be washed by rains directly into the well.

2. The undisinfected linen and bed clothing of the patient may be washed (as is frequently done in the country), in such close proximity to the well, that some of the water from the tub will find its way directly into it.

3. The soil in the vicinity being infected by the excreta, the bacillus typhosus by some inherent power of its own, may penetrate through and thus reach the well. The power of this bacillus to penetrate soil, is at present an unknown quantity. There is good reason, however, to believe that it has this faculty, other organisms having been shown to possess it in a high degree. Thus in an experiment conducted at Strausburg, Germany, (11) in 1899, by digging two pits in the forest twenty-four feet apart, and placing in one the micrococcus prodigiosus and fluoresent Vibrio, it was found that in one hour the Micrococci, and in two hours the Vibrios had passed through the twenty-four feet of gravelly soil into the opposite pit. Experiments made in Turin, Italy,

9Journal Experimental Medicine, Vol. 4, No. 1, 1899.

10Sanitarian March, 1900.

11Zeitschrift fur Hygiene. Vol. xxxi.. 1899.

(12) in 1896, with reference to the filtering power of soil, furnished the same results as the one last mentioned. If we consider the longevity of the baccillus typhosus in polluted soil, and grant that it has the power of soil penetration, it then becomes very difficult to see how country wells escape infection, when typhoid excreta is placed in their vicinity.

Experiments by Martin, of London, Eng., (13) bearing upon the life history of the bacillus in soil are of interest. This observer found that while virgin soil was hostile to the bacillus, organically polluted soil was extremely favorable to its growth. In one particular experiment he found that it maintained its existence in poluted earth for 456 days, and near the end of that time, although dried and powdered to dust, was still viable and presumably virulent. From this we see it is probable that the soil (polluted as it is) in many villages and around country houses must be veritable hot-beds of typhoid bacilli. Its longevity in water has been shown to be very great. Wescott (14) states he was able to trace 19 cases to a certain well, which was then closed and the epidemic ceased; after remaining closed for twenty months it was re-opened to obtain water for laundry purposes, and another case occurred. Reed, Vaughn, and Shakespeare (15) (in report already referred to) state that the bacillus is not only capable of retaining its vitality and virulence for months after it is discharged from the body, but will also multiply in both soil and water; furthermore they say it has been found three months after death in the bodies of those who have died of the disease. This last statement has a very important bearing, when it is remembered that there is a well or spring near every country church, and it is the custom in many sections to bury the dead in the church yard. From such evidence as has been mentioned, it is natural to suppose our country wells have been a prolific source of enteric fever in the past, and being specially liable to infection by typhoid bacilli, they must be regarded as a constant menace to health in the future. In the rural districts from the moment typhoid fever is diagnosed or suspected, the customary drinking water of the family should be placed under suspicion.

Pending an examination (which can now be made free of charge by applying to the Secretary State Board of Health) all water intended for drinking should be boiled. Should the bacteriological analysis show that the water is infected, the well should be filled up and another driven, or sunk at a safe distance from and above the drain side of the one destroyed. It is only fair to state before we leave the subject of water, that the old open well is being rapidly replaced in some sections by the pipe or driven well. These when properly sunk must be much less liable to infection.

No review of this subject would be of any practical use, which did not lay some stress on excreta disinfection. This is especially necessary at present, as the urine in the disease, like the water of Falstaff, has been shown to contain more things than we knew of, and is perhaps a more frequent source of infection than the solid excreta

Not only is it all important to disinfect the excreta of typhoid fever patients, but the greatest care should be exercised in the disposal of human excreta generally, and *especially* in the ordinary privies of the village and country. It has been shown that immune individuals partaking either of food or water infected with typhoid bacilli may deposit the same in their normal stools, thereby innocently serving to infect the water supply, or cause the disease to be distributed by flies. It should not be forgotten that the stools in this disease are often infectious before the subject shows any evidence of typhoid, and again, they may like the urine contain the bacillus sometime after convalescence. (16) Given in the country proper care of privies, and diagnosis of the disease de novo, with ideal disinfection thereafter of the execreta (which alone causes bacillus typhosis infection), the disease could be eradicated. While it may be simply ustopian to contemplate perfection, there is every reason why we should strive to improve our methods of diagnosis and disinfection, and *unremittingly urge upon our clintele the great importance of at least* exercising ordinary care in the disposal of human excreta.

The importance of this must be apparent when we remember it is estimated that annually, 300,000 people in the United States have typhoid fever and 50,000, die of it. (17) I have not mentioned any special method of making the diagnosis, assuming that every physician when possible avails himself of the Widal test and blood examinations. As soon as the diagnosis is made, or if there is any reason to think we are dealing with typhoid, the patient's room should be barred against flies with

12Zeitschrift fur Hygiene, Vol. xxxi, 1899.
13Local Gov. Reports, London, Eng., 1898.
14Reed, Vaughn and Shakespeare, Report to Surgeon-General, U. S., 1901.
15Reed, Vaughn and Shakespeare. Report, 1901.
16W. H. Park. The Bacteriology of Typhoid Fever. Medical News, Dec. 16, 1899.
17Plunkett Sanitarium, July, 1900.

wire gauze or mosquito netting, which has the advantage of cheapness, and sticky paper should be kept in the room, in order to catch any flies who may enter. This should be burned after the flies are caught. A liquid disenfectant must be provided which is absolutely reliable. There are a number of substances which furnish in solution an efficient germicide for typhoid excreta. In some experiments conducted by Gwyn, (John Hopkins' Hospital Reports, Vol. VIII) the following were found effective. I shall append only his five minute table, believing it is proper to destroy the bacillus in the excreta as soon as possible.

To disinfect within five minutes, Gwyn gives the following: (18)

A volume of infected urine would require—

1-2 its vol. of 1-20 Carbolic Acid Sol.
2-3 " " " 1-40 " "
1-5 " " " 1-1000 Bichloride Sol.
3-10 its vol. 10 per cent. Formalin Sol.
1-40 " " Chlorinated Lime "
2-5 " " Liquid Chlorides.

He states, I may mention in passing, that milk of lime which has been much used in the country districts, hardly deserves the name of a disinfectant.

From the above table one may select at will the substance to be used as a liquid disinfectant. It is important, however, that whatever is employed should be accurately prepared and mixed with the excreta in sufficient volume. Personally, I prefer the Bichloride or Formalin solution, having no experience with the others. The latter possesses some advantages over the bichloride, being non-poisonous, non-corrosive and does not injure the most delicate fibrics, It is more expensive than the bichloride. The liquid and solid excreta should be disinfected in the same vessels in which they are received from the patient by mixing with the proper quantity of disinfectant solution and allowing them to stand for an hour before being emptied. When emptied they should be placed in a pit dug into the clay, at a safe distance from and below the drain side of the well. They should be carefully covered with lime and dry earth in order that they may be inaccessible to flies.

The soiled body linen, bedclothing, napkins and cloths used about the patient should be disinfected without delay before they are removed from the sick room. This may be done by soaking them for two hours in a vessel containing a sufficient quantity of the disinfecting solution, thereafter they may be removed with safety to the washtub.

This is important to prevent (among other things) infection of those having charge of the laundry. The writer remembers to have seen in one season seven cases of typhoid in washerwomen, who contracted the disease by handling infected linen.

If the bath treatment is used, some of the disinfecting solutions should be poured into the water after the patient is removed, more especially should he urinate, or have a fecal discharge while in the tub.

Tablets of bichloride may be kept for this purpose, but they corrode the tin tub; it is better to use the undiluted formalin.

When emptied, the bath water should be carried to a safe distance and treated in the same manner as the excreta. The nurse should be carefully instructed as to her personal hygiene, and made to understand the danger she encounters when attending a case of typhoid fever.

Before the patient is discharged and before measures of disinfection are dispensed with, urotropin should be administered for several days in order to disinfect the urine within the bladder. Finally the sickroom must be cleaned and thoroughly treated with disinfectants, including all furniture, beds and bedding. All these things, and more we will do, if we would prevent the propagation of this infectious disease; *moreover we will have to keep them doing.* I know this is detail in the superlative and the subject is trite, aye more, it is stale, but in the language of the oft-quoted Osler, "Its very staleness is warrant for repetition, the triteness makes earnest reiteration a necessity." Why, because thorough measures of disinfection in typhoid fever as instituted by the physician, particularly in our country districts, is not the rule, *it is the exception.* Very troublesome this sanitary business, it may be said, and not inclined to make one popular—admitted.

If one desires to have his instructions carried out, he must frequently lay aside his suaviter in modo, and play for them once the role of health officer. A very different personage, in manner at least, from the affable doctor.

When we are confronted with typhoid fever, not only should we go on a tour of inspection and order the removal of any thing about the premises favorable to its spread, but then and there should commence to urge upon the family the importance of so living as to avoid this disease.

The layman is careless of theories. He must have practical demonstration. It is needful to do Missionary Sanitary work in our daily practice. The time is at hand

18Norman L. Gwyn, Disinfection of Typhoid Crimes, Johns Hopkins Hospital Reports, Vol. VIII, page 304, 1900

when the family physician must share in the responsibility for the propagation of infectious disease. The time is at hand when he will be held responsible.

This is the morn of the 20th Century, the sun of sanitary science is at last above the horizon and like the glorious Orb of day, is illuminating with its God-given rays, the remotest corners of the earth.

The march of civilization has been broad, the march of preventive medicine will be broader. Shall we not fulfill the highest mission of our calling and be as Moses unto This People, leading them out of the Wilderness of uncleanliness, teaching them how to avoid disease?

Mr. President, let us again be pioneers, and enter individually and collectively upon a campaign of sanitary education among the people and solve this problem of typhoid fever in our rural districts.

DISCUSSION.

Dr. Knox.—I wish to express my thanks and the thanks of the Society for that most excellent paper.

Dr. R. H. Lewis.—I would like to cordially endorse that paper and I wish to call the attention of the Society again to the offer of the State Board of Agriculture to make bacteriological examinations of water. In regard to disinfection, the law says it shall be the duty of the attending physician to see that the excreta is disinfected. Leaving out the law, it is apparent that it is the duty of the attending physician to do this. His first duty is to instruct the family as to how to prevent the spread of the disease. In sending a sample of water for bacteriological examination it need not be large. Mr. McCarthy, whom I regard as a most competent bacteriologist, requires that the bottle in which the water is sent be furnished by him that it may be sterile. He insists upon thorough asepsis. The doctor is not a man practicing simply to make money, but stands in the relationship of a trustee, the patient puts himself in the hands of his medical advisor not only to cure him but to take care of him in every way.

Now, I want to call your attention again to the fact that it is within our easy reach to avail ourselves of the opportunity to have the bacteriological examination made of the water.

Dr. J. P. Munroe.—In view of what Dr. Lewis has said I want to make just one remark: It strikes me that Dr. Lewis is a little disappointed that the members of the Society have not responded more generally to the opportunity offered us of having drinking water examined. Of course, Dr. Lewis knows that typhoid fever has not been prevalent the last four months, but I think I can promise Dr. Lewis that Mr. McCarthy will be overwhelmed with samples of drinking water before very long.

Dr. Kent.—I must confess the more I hear of this discussion the more I feel discouraged about the prevention of typhoid fever. In the first place, it is a week to 10 days after the patient has contracted typhoid fever before we have seen the patient. We know the germs of the disease have been spead broadcast by that time. The doctor has told us that our patients are spreading the disease weeks and months after we have dismissed them as patients.

Dr. Summerell.—Dr. Kent spoke of the fact that it was two or three weeks before we saw the patient, and the typhoid fever germs are scattered over the premises and after our patient is dismissed also there is another vehicle of distribution and that is the domestic fowl. We can report instances where our domestic fowls have free access to the dejecta in the country. If the house fly disseminates typhoid fever, why does not the domestic fowl do the same? Why are they not scattered all over the premises and go at once to the source of our drinking water? Therefore, in trying to educate our country population it might be well to warn them to keep their privies free from access to domestic fowls and flies, and encourage the male population to use a closed privy.

Dr. R. H. Lewis.—Mr President:—I have never thought about chickens before as being dangerous. It is very interesting. One reason I am anxious for the physician to look after those things is that it educates the people.

Dr. Weaver.—I would like to ask Dr. Lewis if typhoid fever can be contracted in any other way than by eating or drinking?

Dr. R. H. Lewis.—There is some difference of opinion. I believe personally that it must be allowed. There are certain cases, however, that you can hardly explain unless you accept the ærial transmission theory.

Dr. Geo. W. Long.—I think it is an important matter for the Board of Health, sustained by the physicians of the State to see that we have the best drainage possible. Dr. Long also gave an interesting discussion of considerable length on the ejecta of vegetarians and flies eating races, and herbiverous and carniverous animals.

Dr. H. W. Lewis.—What Dr. Kent says is possibly true, the more typhoid fever is investigated the more dangerous it is found to be. Because there is no care taken of

the excreta does not relieve the physician, he is responsible after he is called. If he treats typhoid fever with the treatment now in vogue he indulges in therapeutic nihilism, cold water and not much else, but he will be kept pretty busy in keeping the family cleaned up. To Dr. Summerell I would like to say his idea about the domestic fowl is an excellent one and new to me, All the authorities I have been able to get at lay stress on excreta, excreta disposal, the privy is the thing to look after. As to dust, plenty of authorites tell you it can be carried by dust provided it is not thoroughly dried and there is wind enough to carry it. As to immunity, Dr. Vaughn states that the measure of immunity in typhoid fever is large, acquired and natural—between 60 and 70 per cent. That is based on his own experience, and his experience is very wide. He had charge of the camp at Jacksonville. The only point I wish to make in my paper is that I believe the time has come for us to take a sanitary position when we assume the position of the family physician.

An Unusual Case of Gall Stone.

By T. P. Wynn, M. D., Tarboro, N. C.

Mrs. F., aet. 48, married. On the night of Dec. 8th was first called. Found patient suffering with slight nausea, some pain, tongue coated, no fever.

Upon inquiry found that for more than a year past patient had been suffering with similar attacks, each, after an interval of a few weeks, sometimes months, being more severe than the preceding. To this time patient had called no physician, thinking, as she described it, her trouble was only one of temporary disorder of the alimentary tract, or simply indigestion. For these troubles she had always treated herself; every conceivable brand of pills being used that the market afforded. Further inquiry showed that the pill habit had become so fixed that in her language, "she could not do without them," protesting that by taking these her indigestion was relieved, and constipated condition of bowels, which was each week becoming a symptom of grave suggestion, was overcome.

Her history of the long and constant use of pills was peculiarly interesting. Obtaining as complete history of the case as I thought necessary, and seeing after further examination nothing specialy suggestive.

Prescribed (℞) calomel, gr. xii, ft. charts. No. vi. Sig. One every 4 hours. Directing diet of soup, or milk, I left to return on the following day.

Returning on the evening of the second day, found that patient had been resting well, nausea gone, pain eased off, no fever; patient apparently better. Calomel had not operated. Accordingly, Seidletz powders, dose every 4 hours until the alimentary tract was relieved, were ordered, directing an enema of warm water to be used later in the day if at all needed.

The nurse satisfying me that my instructions would be carried out, I left to return on next morning, the third day of my patient's sickness.

Returning as by promise, found that previous instructions had been carried out and that no impression whatever had been made towards relieving the bowels—calomel, Seidletz powders, repeated enemas, all doomed to the same failure. Feeling less assured than at any time before, as to a short and easy termination of my patient's sickness with rapid return to convalescence, I again attempted a most thorough examination, with results as before; nothing of especial diagnostic significance beyond what had been noted before, except distension and very slight tenderness in right hypochondriac region; neither to any marked degree. Patient, however, was having at times more pain than at any period of present sickness, getting more restless, besides occasionally the light soups, or milk, or peptonoids were being rejected by the stomach. Made patient as comfortable as possible, giving just enough morphia to keep the pain relieved. Using enemas, and small doses of epsom salts, ordered hourly, I left to return next day.

On fourth day found patient in no way relieved except from pain while taking morphia; and from this time through the entire progress of the case morphia was the drug upon which we had chiefly to rely—this was given hypodermically. For the first time a jaundiced condition of patient is rapidly developing. Percussion and palpation reveal that the hepatic area of dullness extends through epigastric well into left hypochondriac region. The right hypochondriac being perceptibly enlarged, with increasingt enderness throughout the entire region of liver and gall-bladder. Pain increasing relatively each day in same region as case further progressed. Of course, morphia repeatedly and at times energetically had to be given. I ordered after the appearance of the jaundice, for the colicky pains had been present for past three days, olive oil in one to six oz. doses, as stomach would take it, every 4 hours. In the mean time the enemas had not been neglected. To

*Read before the North Carolina Medical Society, at Durham, N. C.

these Seidlitz powders, and at times glycerine had been also added, the same passed by a long tube as far up as practical through sigmoid flexure into the colon. Massage from time to time was attempted. Results no better than before. Ordered frequent inunctions of olive oil over affected region; not from any special faith in its therapy, but that friction in the administration of same might be more faithfully applied by the nurse in absence of the physician. Left to return on evening of same day.

Returned. Found patient resting only when under the influence of morphia. Only a small amount of nourishment was being retained—enough only to barely sustain life, with the stimulation previously ordered, continued treatment as before directed, to return on the morning of the fifth day.

On this visit found condition of patient practically unchanged, without in any way having made least impression towards relieving the alimentary tract. With a similar history and unchanged results the several successive days were passed even to the 16th day of patient's confinement. At this time, on account of gradually declining strength and general weakness, nitrate of strychnin, gr. 1-40, and whiskey every 4 hours, had to be faithfully administered. This course of stimulation was kept up throughout further progress of the case.

Tenderness, with enlargement throughout the epigastric and hypochondriac regions had become daily more progressive. A small amount only of the milk and peptonoids was being retained. Nausea at times was almost uncontrolable, patient's condition at this stage was extremely critical, with little encouragement in the hope of immediate or future relief, pain, nausea, weakness, restlessness calling for continued and most unremitting attention.

With little change of condition, except for the worse, patient had been held up until the 18th day. On the morning of this day patient's bowels moved for first time, and repeatedly until mild medication to limit peristalsis was resorted to. There was no fever during entire sickness—no inflammatory process at or about seat of obstruction.

The gall-sack during entire period had been cut off in its connection with the duodenum by an impacted accumulation of gallstones.

The tensely distended gall-bladder, with an exceedingly engorged condition of the liver, together with the exaggerated weight of both, with functions physiologically suspended, had been for the entire period pressing directly and most powerfully upon the hepatic flexure of ascending colon, mechanically obscuring the lumen of the intestine, until the 18th day, when the stones were dislodged, passing into duodenum, thereby permitting the gall-bladder and liver to return to their normal functions.

Patient goes on to a rapid and uneventful recovery.

Before so late a day surgical relief would have been called, but objection from family and relatives forced us to do the best possible without operation, until nature and good luck helped us through.

The Importance of an Early, Definite Diagnosis of Appendicitis.†

By J. Ernest Stokes, M. D., Salisbury, N. C.

Of all the points pertaining to the pathological lesion, now so universally spoken of as acute appendicitis; no one point possesses, not only the more immediate; but too, remote influence towards deciding the final result, than an early accurate, definite diagnosis of this lesion.

It seems that now the great value of detecting the foremost signs and symptoms, the very initial onset of an acute lesion situated in the appendix, is not so often brought to the attention of the physicians, as is the discussion of the propriety of operating in cases of acute appendicitis, the time when to operate, or even the best method of conducting such a procedure.

Nor does one so often hear the general practitioner himself speak of the tremendous responsibility resting upon him of making out the earliest presence of that surgical condition, which surely must now be acknowledged by all, as most insidious in onset, most disastrous in its progression. How often may one hear of how the medical attendant for a length of time, and alas, too often a fatal length of time, has carefully looked out for signs of pus formation, or waited diligently for the state of being "walled off" to come to pass.

In the way of explanation, it may be stated that the term physician is used only in counter distinction to surgeon; because certainly in a very large majority of cases, the family physician has the first opportunity of making the diagnosis and consequently the greater responsibility of the early, definite diagnosis rests upon him. The responsibility of treatment should be shared both by the physician and by the

†Read before the North Carolina Medical Society, Durham, N. C.

surgeon, though undoubtedly the greater majority of cases should be treated surgically, and is it not so with the diagnosis?

Does, however, the average physician call in a consulting surgeon as often to decide the diagnosis, as he does later to seek the surgeon's aid in combatting those conditions showing progressive characteristics, and that too, after the progressiveness many times has changed the condition, from a superable to an insuperable undertaking? If this be the case, then does it seem unreasonable to claim for the surgeon every possible atom which may go to him in the success of this undertaking? Granting that only those cases showing progressive symptoms should fall to the fate of an operation, that is, they should be the cases allotted to the surgeons' care and efforts, does it not seem probable that a greater chance of saving the patient's life, even of this one class of cases will be given, by allowing the surgeon the very earliest opportunity to stem the tide of this progression? Who is the better able to decide the course likely to be developed in these cases, namely: Whether progressing or non-progressing? The physician or the surgeon?

Surely the very little general medicine has to offer for either form can be carried out by the physician or surgeon with probably the same sad results; but, not so, naturally when an operation is the decision. Therefore, surely in the long run, at least for the patient's welfare, the greater amount of good would acrue by turning over to the surgeon, not only those cases demonstrating a progressive tendency; but, also those of the supposed non-progressive type.

In order that the surgeon, the one who must later assume all the responsibility of those cases, which have gone beyond the control of the physician, and which the physician himself so signifies by calling on the surgeon's aid—may have the great advantage of observing every case in its incipiency, and thus decide for himself, not whether the lesion has proceeded far enough to demand an immediate operation, or perhaps, too far for any surgical procedure; but, rather, whether the case will later demand surgical interference at all. For if so—even then at this earliest possible moment the immediate course to be pursued is clear, very clear.

The following case recently referred to me, illustrates this point: Mr. X., aged thirty years, white, of regular, exemplary habits, for two months had been feeling languid, with loss of appetite. One Friday night on returning home from a banquet, passed a restless, sleepless night, feeling as though he might have a high fever. There was no pain, nor abdominal discomfort. During the next two days patient felt fairly well. The following day, Monday, patient had no abdominal symptoms nor pain; but felt tired with some nausea, no appetite.

That night violent vomiting occurred, but still no abdominal distress. Tuesday morning patient awakened early with acute pain well localized one-half inch below McBurney's point, doubling patient up and making it impossible for him to straighten out. By Wednesday pain had become excruciating, nausea, muscular rigidity and tenderness to pressure in the ileo-cecal area were present. Temperature 103 degrees, pulse 120. Bowels moved with salts, and diagnosis of "catarrhal appendicitis" made at once by the medical attendant.

All the acute symptoms rapidly disappeared apparently, and patient by the end of the following week was able to be about his duties. He did not feel quite up to his usual form; but still there was absolutely no abdominal tenderness nor pain, nor did the patient notice a single suggestive symptom. Sunday morning, the 12th day from the initial onset, he passed his hand, for no especial reason, over his abdomen, and noticed a hardness in the ileo-cecal region; but paid no particular attention to it. He moved about that morning, ate his dinner as usual; but shortly after dinner felt an indefinite discomfort in right side of the abdomen.

He called his physician, who very promptly advised immediate surgical interference. The patient arose and dressed himself and walked without aid to his carriage and was driven to the hospital. That night he came under my observation. On external examination, the muscular regidity in right side of the abdomen was very marked. Dullness over an indurated mass extending around McBurney's point for about 7cm.. The sensitiveness was elicited only by deep pressure, with slight tympanitic note. Facial expression good, pulse 118, temperature 101½. Bowels had freely moved, with two Seidlitz powders. Patient turned himself about in his bed with no discomfort. Locomotion neither difficult nor painful. An immediate operation was consented to by patient.

Upon opening abdomen through intermuscular incision a mass the size of a lemon filled the right iliac fossa. This mass was made up of a necrotic portion of omentum, the outer one-third of appendix, densely adherent to the outer surface of the lower portion of the ileum. The appendix point-

ing upward was 11 cm. in length, gangrenous for outer one-third, base normal in appearance, as was also the cecum, which was drawn down below the brain of the pelvis. The omentum, ileum, and portion of appendix formed the upper and inner wall of an abscess sac This sac contained about four ounces of a thick, creamy pus. Pus evacuated and appendix excised. The serous coat of ileum was necrotic for 3 cm. The bowel for this distance being of a black gangrenous appearance. The abscess cavity which extended beneath ileum towards medium line was swabbed out, and the iliac fossa drained. At present, now over two weeks since operation, patient is doing well. For the first three days the temperature was 101, pulse exceedingly rapid, distended abdomen, and persistent vomiting. [*Note:* About middle of third week, muscular coat of ileum at the site of the necrotic area gave way, and patient now has five perforations. The sutures in cecum at base of the appendix have held absolutely perfectly.]

Can any one doubt for a moment which course would have been better for this patient? The one allotted to him, or an early diagnosis, say on the Tuesday morning, or at the latest a definite diagnosis on the following day, Wednesday. Definite in the sense of a full appreciation that the symptoms were progressive in nature and not only warranted, but demanded immediate surgical interference. But how could one so decide, when all possibility of an early diagnosis was lost after the first two days, (Monday and Tuesday) had slipped by? Had the diagnosis been made any time during those two days, it is not very difficult to see how quickly one must have come to the decision that Wednesday's exacerbation of symptoms were markedly progressive over those of the preceeding day.

Again was the case amenable to medical treatment. Did it respond? I think not, and it is so proven by the tremendous destruction of tissue found on opening the abdomen. Naturally there was a complete cessation of pain, as the appendix became, as Morris describes it, "dead—nerves and all." So that from that time on, one of natures most potent and suggestive signals of danger in this disease was silenced. The abatement of fever, due to the lack of absorption into the general circulation of the pathogenic organisms, was also misleading —yet during the entire twelve days this patient's life was in the greatest jeopardy.

Another case coming even more recently under my observation demonstrated most clearly the inestimable value, first of all, of making out an early, prompt diagnosis, and at the same time demonstrating most clearly what irreparable damage would have arisen had the pernicious practice of temporizing been employed in an attack of appendicitis, which only exhibited the acute definite Cardinal Symptoms later on.

Mr. X., age 26 years, (referred by Dr. John Whitehead) an unusually well developed man physically and of moderate habits. Had had for the past two months a feeling of languor, and loss of appetite, with obstinate constipation. On one Friday evening while at cards felt an inclination to go to stool. On making an unsuccessful effort, a severe griping pain darted through lower zone of abdomen, from right Anterior Superior Spine to the left one. This lasted some fifteen or twenty minutes, then abated somewhat.

Patient walked to his home some squares distant with no increase of discomfort. After he had retired, there was a return of the desire to go again to stool, with return of the pain in the abdomen. The pain increased so that by morning two large doses of morphia had been required to ease the pain. The pain extended throughout lower zone of abdomen, and not at all confined to the ileo cecal region. During the next morning the pain continued same in character and position as previously, but accompanied with nausea and vomiting. Still no movement from bowels.

Later in the day the pain became colicky in character with paroxysm of increased severity. The vomitus was of a dark green color, watery in consistency, with no evidence of any undigested food (important.) During this day several hypodermic injections of Morphia were required, as the intensity of the pain was distinctly on the increase. Later in the afternoon, Saturday, less than 24 hours from the very initial onset, the pain became distinctly localized in McBurney's point, lessened in severity, with the first appearance of tenderness, on gentle pressure; dullness over an area just along McBurney's point. Abdomen became distended with marked muscle rigidity.

Bowels had not yet moved. Patient laid upon his back with knees, especially right one, drawn up. Temperature less than 100 degrees. Pulse a little over 80. The diagnosis of acute appendicitis was made and undoubtedly then was the time for the excision of the appendix, but the patient would not entertain the idea of so sensible a procedure until even over 24 hours later, and only then after he could appreciate for himself that his condition was rapidly

growing worse. Sunday morning, thirty-six hours or so later, the bowels were finally moved, only, however, after the most strenuous efforts. The pain localized with exquisite tenderness, distended abdomen, rise of temperature to 103 degree, quickening pulse of 112, flushed face, with anxious expression, and distinct apathy preceded, in fact ushered in the slow consent of the patient to any surgical interference.

On opening abdomen a black gangrenous appendix wrapped in a necrotic portion of omentum, and burried in between coils of the ileum was found. It extended over brim of pelvis and laid adherent to anterior surface of Sacrum. There was a wide area of localized peritonitis with thick layers of pyogenic membrane between coils of gut, and also on the parietal peritoneum, and lining the iliac fossa.

Appendix was excised and iliac fossa drained. For the first three days the patient was extremely ill, but after that the convalescence was uninterupted.

The keen alertness and ever constant watchfulness of this patient's attending physician saved the day. And did infinitely more towards saving him, than the operation. Appendicitis was suspected on Friday night, confirmed on Saturday afternoon less than 24 hours and an operation insisted upon Sunday noon. Now suppose for the moment the physician had waited until the symptoms were thrust upon him, and such is not an unheard of supposition, namely Sunday afternoon.

Most probably more time would have been lost waiting to see if the symptoms were progressing, and then, as shown by the conditions found at time of operation all would have been to late. In fact it was perfectly possible to see this patient growing rapidly worse hourly, while the local symptoms were apparently becoming less and less marked.

It is the consensus of opinion of the leading surgeons of the day that to foretell the extent of the diseased condition of the appendix the virulence of its infection, is a colossal undertaking, more. an impossible task. Deaver claims to know but two things about appendicitis, "first, that it is an inflammation of the appendix. Second that the appendix should come out." Fowler asserts that "every case of colicky pain in the abdomen, suddenly developed with right side tenderness, should be regarded as a case of appendicitis, until the supposition be disproved. The accusation should be made as it were, and the burden of proof should be placed upon the appendix to show its innocence."

It is not the scope of this paper to discuss the several division of the inflammatory lesions of the appendix; but rather to plead most earnestly for the earliest possible recognition of any pathological lesion of the appendix, whatever it may be. To urge upon all the great importance, and absolute necessity, after recognition, to watch and follow most closely even the milder-afebrile types.

The physician who willingly takes upon himself the responsibility of not only making out the presence of an inflammatory process; but also the course it is pursuing, accepts a burden which in gravity and uncertainty is incomparable to any possible burden an operative procedure could generate.

Again, I am not unwarranted in asserting that in a vast number of the cases of appendicitis which terminate fatally after surgical interference has been instituted, the diagnosis was either a late one, or wofully wanting in definiteness, even at times absolutely erroneous.

In my own personal experience, out of ten fatal cases which I have seen in consultation, the diagnosis had been erroneously made in four. While in the remaining six the diagnosis had not been made until after the distinct onset of general peritonitis. In every case save one, and in that one the appendix was gangrenous in its entirety, suppurative peritonits was far advanced, the peritoneal cavity filled with pus. Without a single exception in the nine cases, at least a very suggestive history of the initial symptoms, was obtainable, and in several, the symptoms of rupture was clear and distinct. Yet with only one or two exceptions were these cases offered surgical interference, within several hours after perforation, to say nothing of primary onset. Though the fatality of these cases rest now upon the surgical interference exerted, the insuperable task was placed there by the medical attendant, as without a single exception the immediate general condition of the patients apparently warranted the eleventh hour attempt.

In the next Series—six in number—all drainage cases, without an exception the diagnosis was a tardy one, indefinite in character. All these cases recovered, after a more or less slow convalescence without any special or serious complication referable to seat of operation. Save in the one, in which a fecal fistula developed.

The third Series—ten in number—in which an early definite diaganosis was made, without a single exception, the convalescence was rapid, and without a serious interruption. Save in one case in which extensive right sided pneumonia appeared.

Diagnosis of Acute Appendicitis.

In the earnest desire of the clinician to avoid overlooking an acute lesion of the appendix. He should ever bear in mind the maxim, that "probability is the rule of life," and in every case of abdominal discomfit without an exception no matter how mild, nor how far removed from the normal position of the appendix, the uneasiness may be situated, he should disprove the responsibility of the appendix, rather than to wait until the symptoms suggest that organ.

The cardinal symptoms of acute appendicitis should be gone over in his own mind, attempting step by step, to fit one, or all of them to the case in hand, rather than to delay to see if the case will suggest the cardinal symptoms. For in this way the fact of a possibility of an acute lesion within the appendix will never be overlooked, and I know of no better arrangement of the symptoms than those given by Fowler, namely:

1st. Suddenness of the attack.

2nd. The occurrence of acute abdominal pain.

3rd. Tenderness at the site of the appendix

4th. The occurrence of nausea and vomiting, either accompanying or following the pain.

But, as Mynter, has clearly put it, "Few diseases however present so many stages, each characterized by a different set of symptoms, and yet only in degree differing from the preceding and following stages; every one of the cardinal symptoms may be lacking, or indicate something else. It is their combination and appearance in a distinct order that makes the diagnosis sure." Thus,—the suddenness of the attack may not appeal to the physician nor the patient; save under the closest questioning as in the case already mentioned in this communication. Here the young man looked on the onset as very gradual and suggesting the grip. What he described as at first sudden was not at all the onset; but the distinct exacerbation of an already pre-existing condition. It is not uncommon for the patient to state having had previously a languid feeling or not up to the usual form condition. In four of my cases the patients had been out enjoying some unusual festivitities, returning home to be aroused some time during the night with sudden onset of pain differing in areas of the abdomen in the several cases. Another was seized with pain on a straw ride. One other retired from a game of cards to go to the lavatory, whereupon he was seized with pain. As a rule the history will elicit a slight attack of pain, followed perhaps not for several nights however, by a very decided increase in severity.

Second Symptom Acute Pain.

Too much attention cannot be given to the second symptom, namely, acute pain. This cardinal symptom is most variable and misleading of all. Variable in its intensity, only however, as a rule, during the initiatory stage, later its intensity is excruciating, and also it is most variable as regards its location. Acute abdominal pain should suggest an appendicular lesion, the other symptoms singly or in combination passing the final definite sentence. Untold misfortune and manifold regrets must often follow if the physician allows his attention to become distracted from the probability of an appendicular lesion by the lack of severity of the pain and the fact that it is referred to the epigastrium or thereabouts with the occurrence of nausea and vomiting. In fact, the diagnosis of "acute indigestion" or of a "biliousness" so common prior to the present time was made too frequently just from these phenomena. This brings out clearly the fact I have attempted to make prominent, i. e., that this is then the time for medical attendants to be forewarned, and, if he be, he will be forearmed against the next progressive step the process makes, which is generally that the pain becomes centered in the right iliac region, and the patient is in for an attack of acute appendicitis of more or less severity, as the case may be.

It is generally conceded that later the final localizing of the pain, rather indicates the position of the tip of the appendix, and that it may lie in any one of the zones of the abdomen, according to how the appendix happens to be pointing. In most cases, doubtless, this may be true, but, in one case coming under my observation, which proved to be a most violent attack, the pain was never referred to the abdomen until perforation took place, but was an excruciating agony limited absolutely within patient's right testicle.

The severity of the pain may vary from a mere local uneasiness to the most excruciating agony. Generally, however, the initial pain is cramp like in character for a more or less indefinite period of time. The patient will toss from one side of the bed to the other, gather himself into a lump in the middle of the bed, or hang half in and half out of the bed. Later, the colicky nature gives way to a pain which has for its most notable character a constant intensity. But, as has been mentioned already the lack of recognition of the fact of the variableness

of the character of the pain and its location may lead to grave errors. In fact one of the most suggestive symptoms may be the utter indefiniteness of the pain in every respect.

Third Symptom.

Tenderness over the site of the appendix should always be without the shadow of a variation, the physscian's sheet-anchor of the greatest probability of there being an appendicular lesion present, whenever it can be detected in accord with all, or even any one of the other cardinal symptoms. Should the point of greatest tenderness be well localized, but still not be confined to the usual site of the appendix, or not only in a strange place, but standing out alone as regards the other symptoms, even then must one most carefully and cautiously exclude the probability of an inflammatory lesion of the apdendix, ere he has done ought to remove his patient from the brink of probable calamity and likely destruction. This tenderness is a most constant and valuable sign and may be looked upon as almost pathognomonic of appendicitis. The sensitiveness as Fowler says: "Will be slight or well marked, according to the stage of the disease and severity of the attack. This is the feature of the disease which forms the best diagnostic guide and indicates more than all the other symptoms combined the progressive characters of the attack." With an increase of tenderness one should bear in mind:

1st. Pus information.
2d. Progressive ulceration.
3d. Gangrene of the appendix.
4th. Perforation.

While of decrease, on the other hand, may be too an augury of very grave import, implying that the effect of the supporative process has been sufficient to paralyze the perypheral nerve filaments.

The Fourth Symptom.

Nausea and vomiting is highly important in conjunction with any one of the other cardinal symptoms, especially if it accompanies or follows the pain; but undoubtedly both nausea and vomiting occur more frequently than any of the other symptoms, while no involvement of the appendix is present. The character of the vomitus should be carefully considered and thoroughly examined. The presence of a dark green colored vomitus, of a watery consistence is more significant, coming on a number of hours after the ingestion of food or some nourishment, than is the expulsion of undigested food shortly after a meal, or immediately following the taking of some medicine or other.

(a) The temperature, (b) Pulse rate, (c) Facial expression, (d) Abdominal distension, (e) The dorsal decubitus, and the degree of limitation of movement on the part of the abdominal musbles, especially upon the right side during the respiratory movements, should all be most carefully observed and profoundly regarded. Still it must be borne in mind that this latter group of symptoms rather aid in determining the progressiveness of the attack, and should not be awaited for in making out an early diagnosis.

The significance of muscle rigidity, the presence of dulness on palpation over a circumscribed area, the proper mode of palpation, and the respective values of rectal and vaginal examinations belong so distinctly to the more advanced stages of the disease that they will not be discussed here.

One point, however, worthy of note must be mentioned here, as it sometimes occurs in the earliest phase of the disease, namely, the intermittent rigidity of the right rectus muscle during the first two efforts at palpation, in an examination. The muscle will become rigid on the first examination. After remaining rigid a moment the rigidity "shies off," so to speak, from under the finger tips. Now, after a moment or two rest, provided the first examination was made gently, and without much discomfort to the patient, a second attempt be made the rigidity will be found not only much less marked, but many times entirely absent.

Regarding the leucocyte-count, though it has its limitations as regards the diagnosis of an appendicular lesion, still it is at times of an inestimable value, as an aid towards determining the progressive character of the inflammatory process, and should, therefore, be invariably made at least several times whenever possible. The following items should be borne in mind:

1st. In an apparently severe case a low count is a very bad prognostic sign.

2d. A steadily increasing leucocytosis, should always suggest an inflammatory process of a progressive character.

3d. There may be a large abscess and still there be no leucocytosis, or at most a very low count. This is generally with a so-called "walled off" abscess.

4th. A very marked and sudden change in the count, either increase or diminution should always suggest rupture of an abscess sac.

5th. In the catarrhal form often the count may be very slightly increased, or even absolutely normal.

The Differential Diagnosis of Acute Appendicitis.

It is not possible here to go into details concerning the differential diagnosis of acute appendicitis. All that space permits me to do is to call attention to the various forms of the affections likely to be confounded with an appendicular lesion, and then for the practitioner to compare the cardinal symptoms, of appendicitis with the symptoms and clinical course of the probable affection. The great difficulty lies not so much in the differentiation of one lesion from another; but in the utter failure of recognizing the insidiousness of every lesion of the appendix.

In the majority of fatal cases the error will be generally in the total want of a definite decision, rather than in a wrong diagnosis. In those cases of erroneously made diagnoses, it is generally found on operating that the suspected appendicular lesion turned out to be a lesion of another organ, rather than the reverse condition. This is important as going to show that an appendicular lesion has a distinct clinical aspect and a clear train of symptoms, which are in the large majority of cases definite, constant.

The following affections have one, or more symptoms in common with appendicitis, and should therefore be borne in mind.

1st. Acute intestinal obstructions.
2nd. Typhoid fever.
3rd. Affections of the gall bladder.
4th. Movable kidney.
5th. Ureteritis.
6th. Abscess in lumbar region.
7th. Ectopic pregnancy, especially at time of rupture.
8th. Pelvic inflammatory disease.
9th. Dysmenorrhic pains.
10th. Coxitis.

One word regarding the administration of opium, and the application of the ice bag. The greatest care should be exercised by the practitioner in the use of either, on being called to see a patient exhibiting decided abdominal distress. As the pain, tenderness, and even the muscular rigidity may be so masked or delayed, as to prevent entirely a true conception not only of their presence; but even progressiveness of the symptoms of the attack.

Finally, the inestimable value of the earliest definite diagnosis of appendicitis can only be fully appreciated by those, who realize and willingly acknowledge to themselves and to the laity, the untold necessity of an immediate surgical interference in the vast majority of cases.

To the man who feels confident in his ability to determine the exact pathological condition existing within the appendix,—namely, whether catarrhal or interstitial. Whether ulcerative or not the early diagnosis will appear of lesser import, than to the man, who ever appreciates his profound inability in many cases, not only to diagnose the nature and extent of the histologic involvement; but even to recognize whether the inflammatory process is progressing or not.

DISCUSSION.

Dr. Hubert A. Royster—I am one of those who believe in every case of appendicitis the surgeon should be called in as soon as a diagnosis is made or there is suspicion of appendicitis. The interest of the patient demands it, justice to the surgeon demands it. It is not fair to ask the surgeon to come in after the physician has had the patient in charge a number of days. Give him the benefit of the doubt in the case, do not wait to force the operation on him with a death on his hands when the whole thing is due to the fact that the surgeon was not called earlier. Operations done too late are a bugbear to surgery; operations done too early are so rare that one seldom hears of such a thing. I believe also that there is not a single symptom of appendicitis to be absolutely depended upon. Dr. Stokes has carefully gone over the symptoms and has to my mind expressed the consensus of opinion among physicians and surgeons. We should not wait for the consensus of evidence. Given any one of these the probability of it must be taken for granted. Pain is sometimes a constant symptom, distention, tenderness. None of the symptoms can be depended on. What can be depended on is the experience of a surgeon who has had a chance to diagnose the cases repeatedly and open the abdomen afterwards and verify his diagnosis. There is no question about the fact that appendicitis is a surgical disease, inflammation of a closed tube going on in the majority of cases to pus formation. In the first place the organ should be removed before pus is formed; if not certainly after pus is formed. I have performed this operation for appendicitis six time in the last 30 days. One of these had the diagnosis of malaria made until he recognized the pus; the second was one in which the diagnosis of typhoid fever had been made, until the abcess was recognized. The more I see of appendicitis before and after operation the more rapidly conservative, I become in the saying that every case of appendicitis should be operated on as soon as diagnosis is made. Dr. Murphy, of Chicago has shown

that no one has ever heard of a case where any one has died within 24 hours, if operated on within that time; and a few have died within the first 48 hours. He has shown that during the first 24 hours the disease is limited to the appendix in the majority of cases; after that by rupture, gangrene or whatever follows the disease becomes one which is not limited to the appendix but is transferred to the surrounding structures. I believe more lives will be saved by operation on every case though they may not all be appendicitis.

Dr. McAnally.—The surgeons tell us there is no rule be which you can diagnose appendicitis, none whatever until it is diagnosed. Who diagnoses it? They say the physician does and when he does it is diagnosed too late, They say in 95 per cent of cases the pain is about the umbilicus. That is a case of colic. Is the surgeon going to call that appendicitis and operate for a case of colic? I have had some cases of appendicitis and had them operated on and the patient did not die. Will the surgeons tell us the difference and help us to diagnose the case in time. I believe in operation for appendicitis but not for colic.

Dr. Geo. W. Long.—In the country we are sometimes called to see cases needing operation who are too poor to secure the services of an expert surgeon. Two or three years since I was called to operate for appendicitis. The usual opening was made in the belly and a large quantity of pus evacuated. Search was made for the appendix but it was not found. A counter opening was made in the side posteriorly for drainage purposes. One month thereafter I was recalled; the posterior wound was closed; the anterior one was discharging an offensive fluid. We were led to believe the existence of intestinal perforation. A much more extensive opening was made, the appendix found and removed. It was perfectly normal. A longitudinal section revealed two small enteroliths—size of hemp seed. We found perforation of ascending colon large enough to pass the hand—edges necrotic. With the scissors the ragged edges were trimmed and then closed with Lembert's method. In this case we used silkworm gut and a common cambric needle, the wound was packed with iodoform gauze, the bowels bound for a week and the recovery was entirely satisfactory. This case has been reported in The Charlotte Medical Journal and the Transactions of the Tri-State Medical Society more in detail. I first thought the operation was for appendicitis, but I do not know whether it was or not.

Dr. Robt. T. Morris, an eminent surgeon of New York, wrote me he had had two such cases. I only mention these facts, so far as they are facts, in order to furnish discussion, and as the case is somewhat unusual I hope I may be pardoned for referring to a case which has already been more fully reported. The next three cases diagnosed as appendicitis.

Cases operated upon in the usual way; pus liberatedi the appendices not found; packed with gauze; two satisfactory recoveries, and one too recent to say what the result will be. I can conceive of cases where the general practitioner in the country can do much toward the conservation of humon life by using his common sense.

Dr. Meriwether.—I am one of the few who believe in operating in every case of appendicitis. In regard to diagnosis, the gentleman spoke about colic being operated on; I believe that 95 per cent of the cases of right side colic are appendicular.

Dr. Kent: I agree with Dr. Long that we cannot have the help of a surgeon in every one of the cases. They are too poor to go to hospitals, and their poverty prevents the country physician from calling in a surgeon, hence we must make the diagnosis for ourselves and if the operation is done we must play the part of surgeon. A few days ago I operated on a case for a young professional brother. The symptoms described to me were as near up to the classical description as you will find. I was not clear as to exactly the nature of the trouble but was satisfied beyond question that it was a case for operation. There was some tenderness on the left side. I suspected probably I might find trouble on the left side and in order to reach that side also, made a median incision. I found the cecum and appendix normal and healthy. In bringing up the intestines on the left side I found the descending colon from the splenic flexure to the sigmoid flexure completely gangrenous so that you all can understand my embarrassment on finding that condition of affairs. The man to be sure, died the next day. A little more than a week before that, a case occurred in my own practice with the usual symptoms of appendicitis on the right side in which I waited until unquestioned tumefaction was developed. There was a board-like hardening of the muscles on that side. I waited two weeks until I was satisfied there was a pus cavity, operated, and today he is a well man. There is always a question in my mind as to whether I had better operate in the beginning of the case or treat medically. Being of a conservative nature I confess I treat the majority of the cases medically and with a

very few exceptions they have recovered without surgical interference. That leads me to believe that this trouble can be produced without a condition existing that will necessarily produce slough. I believe the majority of those cases in the beginning are catarrhal in nature and if treated medically they will recover. Some of them I am satisfied beyond question will recover, but when you consider the chances for or against your patient in a remote country district, I believe it is best for the country practitioner to use medical treatment until he is forced to operate.

Dr. Herring: Unfortunately there is a great many country fellows who think they are surgeons and go to cutting and slashing—want a great reputation as surgeons and they will find a great many cases of appendicitis.

Dr. Weaver: I wish to relate one little experience under this phase of the subject. I was called to see a young lawyer in our town. He had all the classical symptoms of appendicitis, pain in the right iliac region, vomiting, constipation, moderate rise of temperature. I suggested to him appendicitis and an operation. He refused. I gave epsom salts, hot application and turpentine stupes. After six days the man made a recovery. He went on six months probably, and was taken with a similar attack, more severe than the other. The same symptoms reappeared. I called in one of the surgeons and he confirmed the diagnosis; he then made another recovery. He went on six months or a year. Unfortunately he was riding a bicycle and tumbled in one of our rough avenues. He was removed to the hospital. We diagnosed the case as fracture of the base of the skull. It went on a week or ten days and the man died. A post-morten was done and the appendix was found almost perfect, no serious pathological lesions. I would have operated on that man for appendicitis.

Dr. Stokes: The idea in reading the paper was simply to show the necessity of reaching a clear understanding as regards the lesions of the appendix. As regards treatment, that is entirely another thing, and would require a great deal of care and study and a proper paper could not be written without the greatest amount of experience. What I wanted to show is that the average physician does not make a diagnosis of appendicitis until after another lesion has been formed. The mortality under medical treatment is accepted as being about 25 per cent.; with these men who have reported cases here who do the operation even because they have to, the mortality is about 6 per cent. When a man tells you he has cured appendicitis, he would probably not recognize it the next day. As to the cause of colic, that is an indefinite remark. People do have pains in the stomach but the pain may be explained on account of the nerve supply of the appendix, which is from the superior mesenteric plexus of the sympathetic, and filaments are known to run to the small intestine. Undoubtedly cases of appendicitis take their origin from a catarrhal condition of the mucous membrane of the appendix, but as for showing that they always start in the cecum, that is not borne out. The first thing is for the physician to decide if he has the power to diagnose appendicitis and if he has not to put himself in position to do so. As regards Dr. Long's remarks, undoubtly many a good surgeon has never been developed for lack of opportunity and many a man would be a great surgeon had he had a chance to develop. No one knows what the condition of the appendices were in his cases. The surgeon takes out the appendices and an examimation is made of the cases, therefore it is only through the surgeon that you are going to get any sort of statistics in regard to appendicitis. In a majority of cases where the operation is done for appendicitis and the appendix is left in, trouble in the most serious form ensues. As regards Dr. Weaver's remark of the appendix being normal, there was no microscopic examination made. You must be able to know the histological examination of these appendices after they are removed before you are going to be able to tell anything about them. The thing for every practitioner to do is to familiarize himself with the symptoms. The cases ought to be watched and studied by the man who is going to do the operation. If the practitioner is going to operate let him make the diagnosis and operate; if the surgeon is going to operate, then do let him have a chance to take all the responsibility.

Exhibition of Three Cases.*

By H. A. Royster, A.B., M.D., Raleigh, N. C., One of the Visiting Staff, Rex Hospital; Surgeon-in-Charge, St. Agnes' Hospital,

1. Necrosis of the Iliac Bone; Rapid Recovery after Operation.—W. E. M., farmer, aged 31. Family and previous history negative. About Nov. 2, 1900, a pain began

*Read before the North Carolina Medical Society, at Durham, N. C.

in his right hip, at a spot near the anterior superior spine of the ilium, extending downward to the knee and inner side of the thigh and accompanied by swelling and fever. This pain lasted continually and severely for over two months. On Dec. 1st it was somewhat relieved by a discharge of pus from a point at the outer side of the iliac spine. He has lost flesh considerably and had not walked or been on his feet for nearly three months and a half when first seen on Feb. 13th, 1901. *Examination* at that time revealed the following condition: Patient weak, thin and anemic; lies in bed with wasted leg drawn up and is uncomfortable only in certain positions; a suppurating sinus is seen about three inches to the outer side of the iliac crest, while another opening presents itself immediately over the anterior superior spine and from this a sinus runs forward along the groin; below on the inner surface of the the thigh, five inches from Poupart's ligament, is an abscess in the process of pointing; the whole hip is stiff and very tender on pressure. *Operation*, Feb. 16, 1901, under ether anesthesia: First, an incision was made over the sinus in the groin, disclosing a superficial tract which was thoroughly scraped; then, the opening at the anterior superior spine was laid bare. This led to a suppurrting cavity on the inner, or pelvic, side of the ilium and also to a sinus in the bone itself. Necrotic tissue was found here to the depth of two inches from the crest, at which point the gouge demonstrated a perforation directly through the bone into the cavity just mentioned. All the dead bone was removed with chisel and curette. The abscess on the inner side of the thigh was opened and was found to communicate with the opening above at the spine. A gauze drain was passed through and through, a distance of twelve inches, and all the other wounds packed with iodoform gauze. The dressings were changed every day at first, then less often, and a ten per cent. emulsion of nosophen in glycerine poured freely into the sinuses before packing. Iron and strychnine in full doses were administered, a free diet allowed and massage employed. Recovery was rapid, the patient being out of bed in a month and beginning to walk on crutches. On April 15, just two months after the first operation, it was necessary to open a suppurating area in the skin over the gluteal region. The patient was discharged in a few days.

2 Fibroma of the Uterus Complicating Pregnancy; Total Hysterectomy at the third month; Recovery.—A. S., colored, age 28, married seven years; no children, no miscarriages. Her Menses began at thirteen years and were always regular, painful and free, but with no flooding spells. About a year ago first noticed that her abdomen was somewhat fuller and since then has been distinctly aware of a growing mass. She menstruated last during the first week of Jan. 1901, having missed about three months up to the time of her admission to St. Agnes' Hospital on April 6, 1901. She has had no nausea, but has some enlargement of her breasts. The symptoms complained of were a feeling of constant pressure in the abdomen and dyspnea, especially on exertion, increasing in the last month. *Examination*: A large, hard, nodular growth in the abdomen, extending up to the diphragm; the upper portion seems to be movable independently of the lower, and is larger, being much beyond the size of a fetal head; below, there is a mass which entirely fills the pelvis; cervix softer than is usual for a fibromatous uterus and the os is slightly patulous. *Diagnosis:* Fibroid complicating pregnancy. *Operation:* April 17, 1901, Panhysterectomy. Seven inch abdominal incision, tumor delivered easily, no adhesions. The vessels on the left side were tied first and the upper vagina cut through; then the right side was treated in the same way from below upward. The uterine arteries were secured separately and the peritoneal flaps brought together accurately, so that no raw surface was left in the pelvis. The woman made an uneventful recovery.

The tumor when removed was seen to consist of three distinct portions, a larger mass in the upper part, the uterus proper in the middle and a smaller mass below. On opening the uterus a fetus of approximately three months' growth was discovered. The whole womb was riddled with interstitial fibroids. Weight of specimen, twelve pounds.

3. Cystic Tumor of the Spleen; Splenectomy; Recovery.—E. L., colored, age 24. Student. Single. Family history negative. Has been healthy herself with the exception of chills, due probably to malaria. Last summer she had them for a long period and they continued through the winter. Menses began at the age of 13; they have always been regular, but very free, lasting usually eight days and sometimes accompanied with pain. Her appetite is not always good and she suffers from indigestion occasionally. She complains of no special pain. In Nov. 1900 she felt an enlargement in her abdomen about the size of a hen's egg; it gradually increased in size until the present time when it seems to be as large as the fist. Examination:

Patient not stout, but well nourished and healhy-looking; there is in the abdomen just above the symphysis a central, globular enlargement, smooth in outline, the size of a large orange, with linear mass extending upward to the left in the splenic region; on bimanual palpation the growth appeared to move with the uterus and at least seemed adherent to that organ; the crevix was rather soft than otherwise. The diagnosis was considered obscure, opinion inclining to fibroma of the uterus, with the posibility of its being an ovarian cyst. Operation: May 18, 1901, at St. Agnes' Hospital; A three inch abdominal incision was first made over the most prominent part of the tumor. Seeing that it was cyst, the fingers were swept around the broad ligaments, but on pedicle was found in that region. Pushing the mass upward it disappeared entirely from view and was felt through the abdominal wall in the left hypochondrium. The incision was prolonged until it reached above the umbilicus, when it was discovered that the growth was a cyst of the spleen. After separating the adherent omentum (in which were found two smaller cysts), the vessels were tied with a doubled silk ligature and the whole spleen removed. Not a drop of blood was lost in this manoeuver. The right ovary, which contained two or three small cysts was also removed. The abdomen was closed without irrigation or drainage. The patient has had, so far, a perfectly normal convalescence.

Bisol: Its Superior Merits and Practical Advantages Over Other Bismuth Salts.

By H. G. Ostrander, M. D., Brooklyn, N. Y.

One of the first questions which naturally, and very justly, arises in the mind of busy physician when his attention is invited to the consideration of a comparatively new, and as yet partially recognized, medicinal product, is to ask how far has therapeutic experience with the substance by the profession at large established its superiority over many, or even over any, of the possibly numerous preparations of the same drug already at the disposal of the practitioner. "What's the use," he says, "of running the risk of damaging a fair, professional reputation and endangering the prospects of a patient's recovery, by voluntarily lending my talents and opportunities to ambitious, scientific enthusiasts in personal experimentations with pharmaceutical 'quantities' that are not only imperfectly 'known' but little tried?" My reply is, that if he does so merely to prove himself accommodating and with the philanthropic motive of satisfying the curosity of some visionary laboratory chemist, he is not deserving of even the chance benefit he say derive from an unexpected clinical discovery. But if his endeavors in this field of original research be actuated by the true spirits of independent, scientific inquiry; if his efforts have their incentive in a laudable desire to enrich his knowledge of medical principle and theory by patient and unbiased investigations, and to extend the limits of his power in the practice of the "healing art" by cautious and critical experiment; then is he deserving of professional respect; and his unselfish, disinterested labors worthy of emulation.

For my own part, I must confess I am always a little skeptical and suspicious whenever a "long-felt want' has been suddenly supplied by the appearance of a preparation upon the market "which the profession has been waiting for ever since the time of Galen."

The truth of the matter is, we don't need half the drugs we have got already. This being the case, how can we honestly be expected to hail with acclamation of delight the advent of any "long-looked-for" remedy when we were, to speak plainly, really unsconcious of any "need" at all?

The gradual and progessive evolution of medical learning—with the revolutionary changes in medical thought and opinion which it inevitably necessitates—when re viewed in the true light of historical perspec tive, is seen to operate according to laws quite analogous to and parallel with the principles that govern development and advancement in the evolution of theological learning, the established, orthodox faiths of today having been the flaming, religious heresies of yesterday; the universally approved and securely settled medical practices of the present, being the same that fought hardest for professional sanction and recognition in the past. "*Tempora mutantur, et nos mutamur in illis.*"

Modern therapeutic methods are constantly undergoing progressive modification and improvement, and pharmacological art shares equally in the effects of the refining and perfecting influences of an ever-increasing scientific knowledge. The experimental investigations and original researches of the laboratory receive their final reward in the crowning triumphs and achievements of the practical clinicians at the bedside.

One of the many—and probably by no means the least radical—changes in medical thought that have occurred during recent years, is the divided and unsettled state of

opinion held by the medical profession regarding the character, or nature, of the chemical and physiological actions of the salts of bismuth.

I venture to suspect, and judging by the positive and uniformly favorable results of repeated clinical experiences with this new therapeutic salt of Bismuth—BISOL—by critical observers and scientific experimenters, I feel my suspicions to be justified, that the old, conventional idea which conceived the medicinal virtues of Bismuth preparation to be directly proportionate to their degree of insolubility, will soon suffer a modification as sufficent and reliable data continue to accumulate from more thorough and extended investigation.

When my attention was first directed, professionally, to the consideration of this synthetic, chemical compound, BISOL, I do not deny that it was with much hesitation and still greater apprehension that I introduced the same into my medical practice upon all occasions wherein I had formerly employed the old-fashioned, standard subnitrate salt.

My object in such clinical experimentations was not to refute any confirmed and prevailing notion, nor to expose the fallacy of any generally accepted belief, but rather that I might discover whether it were possible to produce the same medicinal effects—to obtain the same satisfactory, therapeutic results—from the administration of the same basic element, "Bi" but in combination with a different acid radical associated with soda, thus producing a far more eligible and elegant preparation, capable of complete solution in an aqueous medium, and permitting the exhibition of smaller doses to secure an equal, remedial, and corrective effective.

And such clinical experimentation with this scientific, rational, and medicinal compound, BISOL, (Bismuthum Phosphoricum Solubile) thus far has conclusively demonstrated to me the fact that its substitution for the old standard Bismuth Subnitrate salt is not only decidedly possible in a pharmacodynamic sense, but is highly desirable and advantageous in a professional, therapeutic sense.

The two characteristic and cardinal qualities which establish its superiority as the preferable pharmaceutical product of the Bismuth compounds are, 1st, its *faculty of combination* with other drugs; and 2nd, its *ease of administration*.

These two rare and excellent qualities alone would seem to offer irresistible temptations to the modern and progressive physician to prefer it to all the other preparations of the same substance; but when he convinces himself by practical experience that no sacrifice of medicinal virtue is demanded—that no satisfyiug therapeutic results are required—in compensation for increased elegance and delectability, it would appear extremely illogical that he should refuse to profit by its advantages.

The quantity of Bisol which it is my custom to prescribe bears the same ratio, or proportion, to the quantity of Bismuth Subnitrate that is necessary to produce the same effect, as one (1) to five (5). That is to say, I now administer Bisol for every affection wherein I formerly administered Bismuth Subnitrate in exactly one-fifth (.2) quantity of dosage.

In order to preserve the perfect solubility Bismuth Phosphoricum in its retaining medium and to prevent it from precipitating as did the Subnitrate salt in the old "shake mixtures," it is imperative that the vehicle, or excipient, possess a comparatively neutral reaction.

The most brilliant and pronounced effects of its remedial action are manifest in all irritative and inflammatory conditions of the mucous membrane lining the whole alimentary canal. In all varieties of gastric and enteric catarrhs—idiopathic, typhoid, and tuberculous—its influence is positive and beneficial. In diarrhœa, dysentery, and "chronic bowel complaint," it has never failed in my hands to cause at least decided improvement, if not a cure.

But the therapeutic influence of this remedy undoubtedly enjoys the full limit of its possibilities in cholera infantum. This acute, zymotic, gastro-intestinal catarrh, which ravages with such frightful mortality among the children of our densely populated tenement-house districts during the heated summer season offers to the earnest and unprejuced practitioner unrivalled opportunities for witnessing convincing exhibitions of its curative power.

What shall eventually come to be the general opinion of the medical profession regarding this new product, Bisol, and how prominent may be the position in our materia medica of the future it will occupy, remains only for the clinical physician to pronounce, and practical experience to determine.

147 State St.

The injection of moderate amounts of tincture of iodine (from one to four drachms) or of carbolic acid (from twenty-minims to one dram) will cure about eighty-five per cent, of the simplest forms of hydrocele.

Spitting by Consumptives.

The National Association for the Prevention of Consumption has recognized the fact that spitting is one of the main causes of the disease they have undertaken to combat. There can be no doubt whatever that the expectorated matters of phthisical patients contain enormous quantities of bacilli, which in a dry form, are distributed about buildings and communicated to man and the lower animals. In this way milk may become infected, but it seems likely that the main part of the enormous incidence of tuberculous disease upon infants may be attributed to feeding with the milk of diseased cows. The latter, of course, may have become infected in a roundabout way by bacilli derived from human expectorations, but the usual agency is undoubtedly the polluted byre. Stringent dairy farm and town byre regulation, therefore, would strike at the root of a great deal of the mischief, especially if coupled with full powers for the compulsory slaughter of tuberculous cattle. The truth is that consumption, as a widespread malady common to man and the lower animals, must be fought all along the line. The National Association is doing yoeman's work in educating the people to a sense of their duty in the matter of prevention. It should be impressed on the community that every consumptive is a centre of active infection, and that he spreads the disease mainly by his expectorations, which, however, can be rendered entirely harmless by a few simple precautions, such as carrying a spit-cup, and by the use of paper handkerchiefs which are afterwards burnt.—*Medical Press and Circular.*

Cæsarean Section in a Girl aged 13.

Clarence Webster (Amer. Jour. Obstet., February, 1901) recently operated on a girl aged 13, American by birth, and apparently of weak intellect. She was in the eighth month of pregnancy. The bony pelvis was of the justo-minor type, the true conjugate measured 9.2 centimetres, or 3½ inches. A sudden attack of flooding came on, the umbilical cord had prolapsed, and the membranes ruptured. The cervix was reached with difficulty, and was found dilated to about the size of a silver dollar. It was filled with blood clots, which extended upwards into the uterine cavity. The vagina was small and resistant, and allowed of no obstetric manœuvre. It was speedily plugged, and Cæsarean section performed. The uterus was firmly contracted on the fœtus, and had never relaxed since the effects of the anesthesia had begun. The incision was mesial, vertical, and anterior as usual; it was 5 inches in length. The fœtus lay transversely with its head to the right. The placenta was attached posteriorly, three-fourths to the upper, and the rest to the lower, uterine segment, and this lower attachment had separated, and thus no doubt accounted for the hæmorrhage. The wound in the uterine wall was closed with continuous chronic gut, which approximated the entire musculature. The peritoneal edges were inverted, and closed with formalin gut. The peritoneal cavity was filled with hot saline solution before closure. The patient made a good recovery. The urgent condition of the patient and the complications made Cæsarean section necessary; turning would have been impossible, and the tissues of the cerxix were not relaxed as at term. Rapid dilation could only have been carried out at the risk of severe laceration.—*British Medical Journal.*

Extract of Red Bone Marrow in the Treatment of Anemia.

Case: Pernicious Anemia.

Blood count: 800,000 red 4,000 white

Treatment: Extract of Red Bone Marrow and Arsenic.

First two weeks: 1,600,000 red cells; 4,300 white cells.

Second two weeks: 3,175,000 red cells; 3,400 white cells.

Third two weeks; 4,750,000 red cells; 4,000 white cells.

Patient continued to improve, feeling better and stronger than ever.

The Extract of Red Bone Marrow and Arsenic were given well diluted with cold water.

Physicians would get better results from the use of Pepsin, Pancreatin, Thyroids, Suprarenal Capsules and other remedies of animal origin if they would, when prescribing, specify the Armour Products, because the preparations emanating from the Armour Laboratory are made from absolutely fresh raw material—material that is put into process of manufacture befroe it has had any opportunity to become trained. There is always danger of ptomaines in goods made from glands or membranes that have been shipped long distances and subjected to exposure due to delays. Another good reason for specifying Armour Preparations is—they are pure, and may be relied upon in all cases where such articles are indicated.

THE

Charlotte Medical Journal.

Editorial Department.

E. C. REGISTER, M. D. J. C. MONTGOMERY, M D

Editors and Publishers.

No. 36 South Tryon Street, - - - -

- - - - - - - - - - - Charlotte, N. C

SUBSCRIPTION. $2-50 PER YEAR,

STATE SOCIETY MEETING.

The President's Message.

A number of good suggestions were made to the Society in the President's address, but some were not practical. The endowment of $1,000.00 for a prize to be offered each year was hardly feasable inasmuch as we have a hundred dollar prize to go begging every year. It would help things far more to have a prominent member of the profession to make an address before the Society. If we could get such men, (and there is no reason why we can not), as Osler, Hare, Keen, Tiffany, Wyeth, and others, to make an address at each meeting, it would have a good effect an the attendance. People are very anxious to learn but they are awfully particular as to who they learn from. We may have prophets in North Carolina, but they are not recognized officially.

President Baker.

Dr. Baker made a most excellent officer, he delivered his address with ease and presided over the deliberations with grace and dignity.

He handled the program so as to get the most out of it and the full and free discussion that followed most of the papers was very enjoyable. For several years we have suffered from a lack of discussion. The papers were good but no one took any interest, at Durham the discussion was even profuse. The President was always cool and self-possessed, even during the discussion on the report of the Board of Censors he was perfectly at himself and guided everything with a steady hand.

The president has much to do with giving tone and character to a meeting and the Durham meeting was handled in a most commendable way by Dr. Baker.

The Pittman Prize.

Only one paper was offered in competition for this prize at the Durham meeting. It is to be supposed that all the members are in such prosperous circumstances that $100.00 in cash does not appeal to them. But the truth of the matter is that the prize has not been awarded for so long a time, the members do not feel like trying to get somewhich is never given. It has not been awarded since 1895 and has completely passed out of the minds of the physicians of the State. No doubt Dr. Pittman in giving this prize intended to stimulate the members of the Society to scientific work, but as it is held back from year to year the purpose of the giver is entirely defeated.

The prize should be awarded every year to the author of the best paper presented, no matter how poor it is, and in the course of a very few years we will see the contest for the Pittman Prize one of the chief features of the annual meeting. Men will not waste their energy trying for something they can not get, but many will try for what they know the best man can procure.

So then let the Committee appointed at the Wilmington meeting be plainly instructed to award the prize to the best paper presented, and let the only standard be the other papers in competition, and if only one paper is presented by all means let it go for that rather than not at all. In so doing we will not only carry out the intention and purpose of the founder, but will greatly help the interest in the meetings of the Society.

Wilmington in 1902.

The choice of a place of meeting is very important for the growth of the society and the enjoyment of those who attend. We have an ideal place for next year and a large attendance will be in evidence and every one will have a thoroughly good time.

Wilmington is able to look after every comfort of the society and not strain a muscle. All of us look forward to a trip to Wilmington as a most pleasant vacation and so next year we can combine business with pleasure. Our work will be fun in this city by the sea.

One of the largest meetings that we have had in years was held in Wilmington in 1892 and in this same place just ten years later we can have the largest attendance and the best time in the history of the Society. Let us all get ready for a breath of salt air in 1902.

Practicing Medicine Without a License.

There are some people who do not think

a license from the State Board at all necessary in order to practice medicine and so they continue to practice on a temporary license granted years ago or attempt to practice without any at all. Such people are of course violating the laws of the State and are liable to punishment, fine or imprisonment or both at the discretion of the court. Many physicians know of such cases in their community but they are afraid to report the violator. In some instances we can understand how the prosecution of such men would be a thankless job but in all cases it should be done regardless of the consequences as to leave them alone is simply to encourage others to do likewise. Usually there are those who will cry out "persecution," "jealousy" and the violator of the law stirs up this feeling among the people as best he can and doubtless the prosecuting physicians gets enough of it before it is finished. In order to protect the reporting physician against this unpleasantness, the society should appoint one physician in each county whose duty it would be to report any unlicensed physician in his county to the solicitor of his district. His connection with the case would be official and not private and this foolish cry of persecution, etc., would soon cease.

Let it be known in all his community that he was an appointed officer of the State Society to see that every physician in his county was regularly licensed or was practicing according to the law of the State.

It is very foolish to allow one disreputable physician to intimidate all the other doctors in a county when they have all the law on their side. It should be the duty of every member to help the official appointed by the Society in bringing the violator of the law to justice. The law is plain and it can be enforced in such a way as to break up the nest of jack-legs who are stealing into our State. Wherever one is allowed another is sure to follow sooner or later.

The Attendance.

Abut 200 signed the registration book so that there were perhaps 225 in attandance. Some of the members forget to sign the registration book and them cuss the secretary for not marking them present.

The first and second days there were crowds in the hall but on the third day there was hardly a Baker's dozen to install the officers. It is always a task to hold over the members for the third day's work and yet we had plenty of unread papers to make a whole day's session.

The election of officers should be held at 12 M. of the third day as an inducement for staying over. Usually as soon as the election is over the majority of the members go home for this reason the constitution should be changed so as to make the time of election immediately before the final adjournment.

The Program.

It is rather a hard thing to get up a time program as the discussion is an unknown factor in the case.

There was too much on the program for the first day and too little for the second because the first two papers read were discussed at considerable length. The surgical section seems to be the favorite with practice a close second. A number of interesting papers were read and it seems that our members were spending more time on their work.

The paper by Dr. Dixon Carroll was very creditable and showed a vast amount of careful study and preparation. Her manner of reading gave an added interest to the subject.

A few good papers were spoiled by the indifferent manner in which they were read but on the whole the scientific part of the program was up to the standard set by the previous meetings.

Chairmen of Sections.

The scientific work of the Society is done in the different sections and consequently a considerable responsibility falls upon the different chairmen. Good work was done by all the officers of sections at the Durham meeting, especially by those of Practice, Surgery, Gynecology and Obstetrics.

For next year we have a corps of good men who can be depended upon to do their work well. President Young made the following appointments:

Practice of Medicine.—Dr. David J. Hill, Lexington.

Anatomy and Surgery.—Dr. A. S. Pendleton, Warrenton.

Materia Medica and Therapeutics.—Dr. J. B. Wright, Granite Falls.

Obstetrics.—Dr. E. A. Moye, Greenville.

Pathology and Microscopy.—Dr. A. J. Crowell, Charlotte.

Medical Jurisprudence and State Medicine.—Dr. J. F. Nicholson, Richlands.

Gynecology.—Dr. J. Ernest Stokes, Salisbury.

Pediatrics.—Dr. E. D. Dixon Carroll, Raleigh.

Chemistry and Physiology.—Dr. Frank O. Rogers, Concord.

Railway Surgery.—Dr. J. H. Manning, Rocky Mount.

These men will get up the papers under their respective sections, and we can safely promise a full program for the Wilmington meeting.

Dr. A. A. Kent, of Lenoir, will lead the debate and the Annual Discussion will no doubt be one of the profitable things of the next meeting.

Dr. John C. Rodman, of Washington, will deliver the Oration on the evening of the second day.

MINUTES.

Society was called to order at 11 A. M., by A. G. Carr of Durham, Chairman of the committee of arrangement. Rev. W. L. Cunninggim then led in prayer.

The address of welcome was delivered by Prof. Jerome Dowd of Trinity College and was responded to by Dr. Hubert A. Royster of Raleigh.

The President then declared the society open for business.

The roll was called and the President delivered his address.

The following committees were appointed.

Credentials.—A. G. Carr, R. H. Lewis, J. A. Burroughs, H. T. Bass and F. H. Russell.

Finance.—C. M. Poole, A. S. Anderson, N. P. Boddie, I. M. Taylor and T. P. Wynn.

Pittman Prize.—R. S. Young, Jno. M. Manning and E. G. Moore.

President's Message.—Geo. W. Long, H. W. Lewis, W. H. Harrell, A. Cheatham and B. K. Hays.

Dr. H. T. Bass read a paper on "Antitoxins and Animal Extracts." Discussed by Drs. J. A. Burroughs, R. S. Young, H. W. Lewis, G. W. Long, Chas. B. McAnally, I. M. Taylor, F. H. Russell and R. H. Lewis.

A paper on "Pneumonia and its Treatment," was read by Dr. Jno. C. Rodman, and discussed by R. H. Lewis, H. W. Lewis, R. H. Whitehead, Chas. B. McAnally, A. A. Kent, N. B. Herring, G. T. Sikes, J. F. Miller, H. T. Bass, R. J. Gill, and B. F. Halsley.

The Society then adjourned until 3:30.

Society was called to order at 3:30.

Dr. H. B Weaver read a paper on "Tuberculosis" which was discussed by Drs. J. A. Burroughs, H. T. Bass and H. W. Lewis.

A paper on a "Few Great men in the History of Medicine" was read by J. Edwin Kerr and was discussed by Dr. B. K. Hays.

Dr. J. E. Stokes read a paper on the "Importance of an early definite diagnosis of Appendicitis." It was discussed by Drs. Royster, NcAnally, Meriwether, Long, Kent, Herring and Weaver.

On motion of Dr. Kent a vote of thanks was tendered Dr. Stokes for the very interesting and instructive paper.

Dr. W. B. Pritchard read a paper on "The Limitations of Surgery in the treatment of Nervous and Mental Diseases." The paper was discussed by Dr. I. M. Taylor.

The society then adjourned until 10 A.M.

Society called to order at 10 A.M.

The special order of the hour was called up and without discussion the official organ of the society was abolished.

Dr F. H. Russell made a Report on Obstetrics.

The President appointed the following committee on nominations:

L. J. Picot, A. Cheatham, Chas. J. O' H. Laughinghouse and Geo. G. Thomas.

Dr. Hubert A. Royster reported two interesting surgical cases.

Dr. A. W. Knox reported two interesting surgical cases and they were discussed by Dr. I. N. Carr.

The Board of Censors made a report but after discussion it was referred back to the Board for further consideration.

The conjoint meeting with the State Board of Health was then held.

The Society was called to order at 3:30.

The obituary committe made their report which was adopted.

Dr. Michael Hoke read a paper on "The Pronated Foot" which was discussed by Dr. Munroe.

A paper on " Interscapular Clavicular-thoracic amputation for Malignant Growth" was read by Dr. R. L. Payne and discussed by Dr. H. A. Royster.

Election of officers for 1902 was then held resulting as follows:

President—R. S. Young, Concord.

1st Vice President—A.G. Carr, Durham: 2d Vice President—I. M. Taylor, Morganton: 3d Vice President—E. D. D. Carroll, Raleigh: 4th Vice President—J. M. Parrott, Kingston.

Secretary and Treasurer re-elected.

Dr. E. D. Dixon Carroll read a paper on "Blood Metabolism" which was discussed by Dr. Hays.

The Board of Medical Examiners then made their report.

Wilmington was selected as the place of meeting for next year, the exact time to be left with the Local committee.

The committee on Finance made their report.

Dr. J. Allison Hodges of Richmond was elected an honoray member of the Society.

The meeting then adjourned until 9 P.M.

Society called to order at 9 P. M. In the absence of the essayist and orator, unfinished business was taken up.

Dr. J. P. Munroe read a paper on "The Importance of Early Diagnosis and Treatment of Tuberculosis" and it was discussed by Drs. Weaver, Payne, High, Hodges, and Rodman.

Committee on nominations reported.

Dr. H. W. Lewis read a paper on "Typhoid Fever in the Rural Districts of North Carolina" and it was discussed by Drs. Munroe, Kent, Summerell, R. H. Lewis, Weaver, Long and Hays.

Society then adjourned.

Society met at 10 A M.

On motion all papers on the regular program which had not been read were referred to the committee on publication.

The committee on Pittman prize reported that the papers this year was not up to the standard contemplated and the prize was not awarded. Report was accepted.

It was announced that there would be a barbecue in honor of the Medical Association to which all members were invited.

Installation of officers.

Dr. R. S. Young was conducted to the President's chair and was received with loud applause. He expressed in a few well-chosen words his appreciation of the honor the Society conferred upon him and his ambition to make his administration an efficient one.

On motion of Dr. Laughinghouse it was voted that the thanks of the North Carolina Medical Society be extended to the citizens of Durham and the local Committee on Arrangements for the successful way in which they had entertained the Society.

Dr. Thomas Parrott under suspension of the rules was elected a member of the Society, in the absence of the Credential Committee.

Chairmen of sections for next year were announced.

The Society then adjourned until its next annual meeting in Wilmington in 1902.

Address of Welcome.

By Prof. Jerome Dowd of Trinity College.

Gentlemen of the North Carolina Medical Society:

Since Durham has grown from a small village to a large city many strangers nock at her gates to partake of her hospitality. Some of them come in pairs, some in troups, some in large bodies like methodist preachers and doctors. Within the last year we have been honored by a visit from the Knights of Pythias, the Elks, the Junior Order of Mechanics, the Undertakers (and by the way I have been told that the undertakers cover up many of your mistakes). We have had John Robinsons show, the Harvard baseball club and a dog show. In addition to these several expert opticians and patent medicine men have dropped in upon us and I have observed that some of these play beautifully upon the banjo. Then Dr. Lee the hypnotist and Madam Ami the celebrated fortune teller. Some of these strangers do us and some of them are done by us. In the present case gentlemen we know that you will do us—only good, and consequently we will open the gates of the city wider than common and offer you the freedom of the city. To be sure we shall treat you well. We dare not do otherwise. We are always very careful what we do or say to physicians. We feel somewhat toward them like the deacon did toward the devil. A young preacher came to town and preached on the devil. He denounced old Nick in the loudest language for about an hour and a half as the author and finisher of all mischief in the world. The old deacon came up to him after the sermon and said to him, are you not afraid to talk about the devil so in that way? I tell you we can't be too careful about the devil says the old deacon, we do not know whose hands we are going to fall into.

There are no workers in the world who have done so much for the welfare of this century and generation as the physicians and surgeons.

At the close of the 18th century medical science was purely theoretical. The theory prevailed that all diseases was caused by humors and this theory gave way to another which held that all disorders and abnormalities were caused by the nervous system. Strange to say this theory is still believed in by some men of enlightment. For instance, Dr. Caldwell of the Charlotte Observer holds that the reason a rabbit wabbles his nose is because of his nervous system. Dr. Brown advanced the theory that diseases were either sthenic or asthenic. This theory is still believed by a great many people, they believe that nearly all diseases are sthenic and require a stimulant.

Early in the 19th century the medical science drew away from the study of theory to the study of life, to the study of anatomy, physiology, pathology, clinics, the laboratory and hospital and with the discovery of bacteria there were accomplished such miracles in medicine and surgery as the world never dreamed of. Within the last five years many diseases have been banished from civilization and every dis-

ease except one has been diminished or rendered less dangerous; that one I believe is spring fever. Cholera, yellow fever, leprosy, the plague, have been successfully excluded from all civilized countries. Typhus fever which was at one time a scourge on every city,is now seldom named among the causes of death. The mortality of nearly every disease has been greatly reduced. Smallpox which at one time carried away more people than consumption is now unknown in well governed countries, and lastly that worst of human plagues, consumption, which annually kills about 120,000 people in the United States, is yielding to the practitioner and sanitarian and the remedy is already known which if properly carried out will drive that disease from existence. If half the progress had been made in the science of government, of cities and states that has been made in medicine in the last 50 years, there would not be a case of smallpox in the state of North Carolina to-day. In surgery the discovery of anæsthesia and the development of antiseptics has resulted in the extirpation of many fatal maladies and the death rates from all operations, including those of more serious nature scarcely exceeds 50 per cent. Sir Spencer Wells in his first 1000 cases of ovariotomy saved 20,000 years of human life. One of the best types of christian character potrayed in literature in modern times is that of the country physician, who was so hard worked that he had little time for theology and less time for Sunday school and prayer meeting. All true religion is work and all true work is worship. The cathedral in which the physician worships is as wide as humanity, its dome reaches up to the heavens.

In the name of those who in the hour of affliction have lifted up hands weak and trembling, now thankfully restored to life and health and vigor, and in the name of all of us who shall some day listen to the tread of your foot and look yearningly into your face, we now give you a warm grasp and bid you all a mighty good day and a mighty good welcome.

Response.

By Dr. Hubert A. Royster of Raleigh.

Mr. President, Ladies and Gentlemen:

Whenever called upon to make a speach I am in the habit of beginning it with a certain anecdote. It runs something like this: A Philadelphia politician was invited to go to Chicago to make an after dinner speech. He went, spoke an hour and returned. When asked by his wife as to his success he said, I did eloquent, eloquent, the best thing I ever did in my life. When I sat down they told me it was the best thing I ever did in my life. I hope I will be spared this fate. I am going to make a humorous speech because it is short. Doctors are no great speech makers. I am sure there's a few things in the world I can do, and I am certain that speech making is not one of them. General Grant said there were two tunes he knew: one was Yankee Doodle and the other was not. I will not tell you the things I can do for fear I would weary you. A country doctor also said there were two classes of skin diseases: one that zinc ointment would cure and one that it would not cure. In making a speech I hold to the maxim of Lord Fox—jump into the middle of a sentence and trust to providence to jump out. I wish that I had the eloquent tongue to respond to this address of welcome which was full of hospitslity as well as an insight into the medical profeession which a layman rarley gets. But I am no orator as Brutus is. I wish that I had the tongue of men and angels or the sounding brass that is so necessary for an orator but I do not possess it.

I can heartily respond to this welcome that we have received. I am proud to be the representative on this oceasion of the North Carolina Medical Society. I take it as a paticular honor that I was chosen because I come from the city of Raleigh which is a neighbor of Durham and I congratulate myself for personal reasons that I have been chosen because I know a great many of the good people of Durham. As a representative of the Medical Society, gentlemen of Durham, I can assure you that your hospitality and kind treatment in the way in which it is given, in a generous open heartedness and freedom with which Durham lavishes everything which she has, is heartily appreciated. I certainly can say for the State Medical Society we are glad to be in your midst and to accept all, and that is a great deal, which you give. As a citizen of Raleigh I am glad to say I feel at home in Durham. There has always been a sort of friendly rivalry between the two cities which only goes to show that Durham has outstriped us because Durham is younger, and there is a saying in Durham that Raleigh is not the proper name for our city, it ought to be called East Durham. Personally I may say I am extremenly glad to be in Durham again. I have been here for business and for pleasure—to see the baseball games, to see the people of Durham, and I have been here to see her beautiful young ladies, last and not least. I can

assure you that we accept your hospitality in unmeasured terms and will enjoy it to the fullest extent.

BOARD OF MEDICAL EXAMINERS.

The following are the questions asked by the members of the Medical Examining Board at Durham, May, 1901:

Meteria Medica and Therapeutics.

By E. C. Register, M.D., President, Charlotte, N. C.

1. Name the preparations of Aconite and give the dose of each.

2. What is Salol? Give its therapeutical uses.

3. What does Dover's Powder contain?

4. Name two or three of the best respiratory stimulants and a few conditions where they are indicated.

5. Describe the value of Quinine in the different forms of malaria and how it should be given in each case.

6. Give the physiological action of Strophanthus on the heart.

7. When are Emetics contra-indicated?

8. Describe the symptoms of Chronic Lead-poisoning.

9. How would you treat a case of Phosphorus poisoning?

10. What is the difference between Carbolic Acid and Creasote? Compare them physiologically.

Examination on Surgery.

By D. T. Tayloe, M.D., Washington, N.C.

1. What is Appendicitis?
   (a) What are the varieties of that disease? (b) What are the causes and the clinical aspect? (c) What is meant by recurring and relapsing appendicitis? (d) What is the conservative treatment, and what is the operative treatment of appendicitis? (e) Describe the operation.

2. What are the anatomical, and what are the clinical varieties of hemorrhage? (a) What is the general or constitutional treatment in case of collapse or threatened death from hemorrhage?

3. Explain the terms "delayed union" and "ununited fracture." (a) What is the cause, pathology and treatment of these varieties of fibrous union?

4. What are the symptoms and causes of general cerebral compression? (a) What are the non-operative and operative treatment of general cerebral compression?

5. What are the indications for laparotomy in abdominal wounds? (a) When is drainage necessary after abdominal section? (b) How is it effected in the abdominal cavity? (c) What is the management of the drainage tube?

6. What is the etiology, pathology and symptoms of varicose veins? (a) What is the treatment of varicose veins of the limbs? (b) Describe the surgical treatment?

7. What are some of the conditions that call for, and what are the conditions contraindicating amputation? (a) Describe the principles to be observed in performing an amputation.

8. What is septicæmia? (a) In true septicæmia how does the blood in general become infected? (b) What is the condition of the wound? The symptoms and treatment of septicæmia?

9. How do you prepare patients for the administration of anæsthetics? (a) What accidents may occur? (b) What precautions are taken during administration of ether? (c) Under what circumstances is chloroform preferred to ether?

10. What dislocations may occur at the elbow-joint? (a) Give the symptoms and treatment of backward luxation of the radius and ulna? (b) What is the most difficult luxation to reduce? (c) What is the cause of difficulty.

Examination in Anatomy.

By Dr. J. Howell Way, Waynesville, N.C.

I. Describe the external surface, vertical portion, of the frontal bone.

II. What is the average thickness of the skull-cap and where are the thickest and thinnest portions found?

III. Describe the elbow joint, giving classification, bony surfaces entering into its formation, names of ligaments, arterial and nervous supply, and actions.

IV. Give origin, insertion, blood and nerve supply, with actions of sterno cleidomastoid.

V. Locate and describe the deep palmar arch.

VI. Describe the arterial supply of the dorsum of foot and name branches.

VII. Describe the fissure of Rolando and locate same on the exterior of skull.

VIII. Locate the liver, give weight, dimensions, and describe its inferior surface.

IX. Name the branches of the external popliteal nerve and describe their distribution.

X. How far above the level of the first rib does the lung apex extend and what structures lie in front of it?

Questions in Physiology.

By T. E. Anderson, M.D., Statesville, N. C.

1. Describe Tubuli Uriniferi, giving diameter, origin and endings, and part performed in the secretion of urine.

2. What are the known functions of the Liver? Explain.

3. Locate the Gyrus Fornicatus; what effects would follow the destruction of same?

4. Name ferments of Pancreatic Secretion and part played by each in digestion.

5. How is animal heat lost under physiological conditions?

6. State what you know concerning the Physiology of the Thyroid Gland.

7. State in general terms the location of the Motor Area of the Cerebral Cortex and trace the main path traveled by impulses from this Area into the Spinal Cord.

8. What effect does a destructive lesion of one Occipital Lobe have upon vision? Why?

9. What nerves supply the heart? State the function of each with respect to its influence upon the heart's action.

10. Give an account of the action of Vasa Motor Nerves.

Obstetrics, Gynecology and Pediatrics.

By Albert Anderson, M.D., Wilson, N. C.

Obstetrics.

1. Give distinction between first and subsequent pregnancies.

2. Give treatment for pregnancy-vomiting.

3. Operation for Cæsarean section.

4. Give anatomy of breast and changes during pregnancy and lactation.

Gynecology.

1. Vaginismus. Definition, cause and treatment.

2. Myomata. Their description, position and symptoms.

3. Give indications for Trachelorrhaphy.

Pediatrics.

1. Rheumatism. Varieties, cause, symptoms and treatment.

2. Variola and Varicella. Define the terms and give the difference between the two.

3. Pneumonia. Varieties and treatment.

Chemistry.

By Dr. Thos. S.McMullan, Hertford, N.C.

1. (a) What is an Amorphous Substancsz (b) What is "Distillation" and what is "Sublimation"?

2. (a) What is "Capillary Attraction"? (b) What is a "Chemical element"?

3. State the difference between a chemical compound and a mechanical mixture, and give an example of each.

4. (a) In what natural state is "Chlorine" to be chiefly found? (b) What are the physical properties of "Iodine"?

5. What is Ozone; under what natural conditions is it found?

6. (a) What properties should water possess to be "Good Drinking Water"? (h) Why are Nitrites and Nitrates objectionable, and how may impure water be made fit to drink?

7. Give the constituents of atmospheric air and state the chief difference between animal and vegetable respiration?

8. What is Putrefaction? State under what conditions this process occurs.

9. (a) Mention a Carbohydrate of animal and one of vegetable origin. (b) What is the most characteristic chemical feature of "Hæmoglobin"?

10. (a) What is an Alkaloid, and mention one. (b) What is Electrolysis?

Practice of Medicine.

By Dr. J. C. Walton, Reidsville, N. C.

1st. Name the eruptive fevers, describing the eruptions of each; state where it first appears and the time of its appearance (i.e. Measles, Scarlet Fever, Varicella, and Variola); differentiate clearly between the last two.

2d. Give the symptoms of Croupous Pneumonia in its various stages, and give treatment both general and local.

3d. Differential Diagnosis and Treatment of chronic Parenchymatous and chronic Interstitial Nephritis.

4th. Symptoms, Diagnosis and Treatment of Diphtheria.

5th. Causes, Prophylaxis and Treatment of Typhoid Fever.

6th. Describe a case of Cerebral Hemorrhage; Causes, Symptoms, Diagnosis, (differentiating between Uræmic and Alcoholic Coma and Opium Poisoning) and Treatment.

7th. Describe a case of Acute Articular Rheumatism, and give treatment with special reference to the avoidance of Complications.

8th. Treatment of chronic Gastric Catarrh.

9th. Differential Diagnosis between Aortic and Mitral Regurgitation, and state how you would detect and treat failure of compensation.

10th. Describe briefly how you would disinfect person and room after Small Pox, naming the best known disinfectant and how obtained. How often is it necessary to vaccinate, and what kind of virus would you use?

Report of the Board of Medical Examiners.

DURHAM, N. C., May 22d, 1901.

Dr. Way presented the following report:

To the North Carolina State Medical Society:

On May 16th, 1901, the Board of Medical Examiners met in Regular annual session at the Hotel Carolina in Durham, N. C., all the members present.

One hundred and four applicants were examined for license to practice in North Carolina. Of this number 2 withdrew, 25 were rejected, and 77 licensed.

An average grade of 80 per cent. is required to obtain license, and the usual system of designating applicants by number, (the name with address being placed in an envelop, sealed and remaining unopened until the close of the ballot), is still practiced. In registering the applicants for examination this year a specially prepared blank was used with the idea of rendering more complete the personal record of each applicant for license. An inspection, made by the Secretary after the examinations were ended and the ballotting for licentiates completed, of these individual record sheets reveals the interesting fact that of the 95 white applicants (among the ranks of whom there were 18 rejections), only one rejection occurred where applicants had taken an academic degree or advanced to the junior year in college prior to entering upon the study of his profession.

The significance of this record is apparent and renders obvious the duty of the members of our profession to encourage young men about to study medicine to first thoroughly fit themselves to fully grasp and completely master the intricacies of modern medical science.

The average age of those licensed was 26 years—of those rejected 29.

The names and addresses of those licensed are as follows:

Lawrence E. Holmes, Biltmore, N. C.; E. A. Thomas, Winston, N. C; Wm. A. Graham, Durham, N. C; E. G. Ballenger' Tryon, N. C; Jno. Hodges Drake, Jr., Asheville, N. C; Watson S. Rankin, Erskine, N. C; B. S. Herring, Wilson, N.C; Chas. H. Shepard, (col.), Raleigh, N. C; W. F. Hargrove, Tarboro, N. C; W. H. Prioleau, Jr., Asheville, N. C; Jas. W. Peacock, Salisbury, N. C; O. W. Holloway, Gorman, N. C; Geo. Ruffin Benton, Wilson. N. C; G. E. Newby, Hertford, N. C; Lucius B. Morse, Asheville, N. C; Dunlap Thompson, Marven, N. C; H. H. Briggs, Asheville, N. C; Arthur L. Jones, Silas Creek, N. C; D. L. Garland, Rabun Gap, Ga; R. H. Garren, Limestone, N. C; Jos. Harry Horne, Wilmington, N.C; F. S. Hargrave. Lexington, N. C; W. W. Early, Aulander, N. C; Augustus S. Rose, Fayetteville, N. C; S. Walter Staley, Liberty, N. C; Jno. Thomas Hiatt, Ellerbe, N. C; T. V. Moore, Phœnix, N. C; Edward C. McEacheru, Wilmington, N. C; Jno. P. Monroe, Sanford, N. C; E. B. Meadows, Oxford, N. C; J. E. Foscue, Pollocksville, N. C; R. H. Speight, Jr., Wrendale, N. C; G. M. Maxwell, Davidson, N. C; Hoagland Cook Davis, Fayetteville, N. C; Andrew F. Tuttle, Germanton, N. C; Jno. Alexander MacKethan, Fayetteville, N. C; Aaron Chapman Woodruff, Sparta, N. C; M. Hugh McBryde, Little River Academy, N. C; W. E. Kornegay, Goldsboro, N. C; Zenas Fearing, Elizabeth City, N. C; R. W. Zimmerman, Enterprise, N. C; L. Lester Self, Lincolnton, N. C; Jas. F. Dicks, Walkertown, N. C; Theo. L. Ginn, Goldsboro, N. C; Etheldred Hooks, Fremont, N. C; Wm. H. Dixon, Edward, N. C; H. H. Hunter, Somerton, Va.; E. R. Hart, Tarboro, N. C; Eric A. Abernathy, Chapel Hill, N.C; W. R. Goley, East Durham, N. C; Joseph A. Allen, Poindexter, N. C; J. R, Parker, Laws, N. C; C. M. Hughes, Cedar Grove, N. C; Jno. H. Tucker, Henderson, N. C; Jno. J. Hocutt, Emit, N. C; H. P. Underhill, Salem, N. C; R. W. Johnson, Oakdale, N. C; Claude D. Thompson, Harden, N. C; Porter B, Orr, West Asheville, N. C; Paul R. MacFadyen, Clarkton, N. C; R. Vance Brawley, Mooresville, N. C; Albert Sherrill, Lenoir, N. C; Peter C. Jurney, Olin, N. C; Chas. Z. Candler, Dillsboro, N. C; W. L. Taylor, Stovall,N. C; A. F. Williams, Kenansville, N. C; Arthur J. Edwards, Winston, N. C; Clyde E. Cotten, Black Mountain, N. C; S. P. Watson, Rock Hill, S. C: Geo. W. MacGregor, Pinehurst, N. C; Wm. R. Kirk, Hendersonville, N. C; Henry H. Kapp, Bethania, N. C; Claude L. Pridgen, Kinston, N. C; Louis C. Skinner, Greenville, N. C; Thos. M. Green, Wilmington, N. C; Francis O. Rogers, Concord, N. C.

The following is a tabulated statement of the applicants graduating from the various Medical Schools of the country, with the disposition of the same:

The highest grades made in this examination were as follows:

Dr. Wm. Alexander Graham, of Durham, N. C., average, $94\frac{6}{7}$.

Dr. Laurence Edward Holmes, of Asheville, N. C., average, 94.

Dr. Edward A. Thomas, of Winston, N. C.; average, $92\frac{3}{4}$.

	Applied	Withdrew during Examination.	Rejected.	Licensed.
Southern Medical College of Atlanta, Ga.	1		1	
Tulane University of Louisiana, La	1			1
Chicago Homeopathic Medical College, Illinois	1			1
Yale University, Connecticut	1			1
Medical College of Alabama, Alabama	1			1
University of Michigan, Michigan	1			1
College of Physicians and Surgeons, New York, N. Y	1			1
University of Maryland, Maryland	15			15
Jefferson Medical College, Pennsylvania	4			4
University College of Medicine, Virginia	18		1	17
Maryland Medical College, Maryland	2	1	1	
Hospital College of Medicine, Kentucky	1			1
University of Nashville, Tennessee	6		4	2
Dartmouth Medical College, New Hampshire,	1			1
Medical Department University of Wooster, Ohio	1			1
Medical Department University of Vermont, Vermont	1		1	
Baltimore Medical College, Maryland	3		2	1
University of Virginia, Virginia	3			3
Chattanooga Medical College, Tennessee	1		1	
Medical College of Virginia, Virginia	8		1	7
Atlanta College of Physicians and Surgeons, Georgia	2			2
University of the South, Tennessee	1		1	
University of Tennessee, Tennessee	3		1	2
Atlanta Medical College, Georgia	1			1
Baltimore University, Maryland	1		1	
Tennessee Medical College, Tennessee	2		2	
Meharry Medical College, Tennessee, (colored)	1		1	
North Carolina Medical College, North Carolina	7		1	6
Leonard Medical College, North Carolina, (colored)	7		5	2
Howard University, District of Columbia, (colored)	1		1	
College of Physicians and Surgeons, Baltimore, Md	1			1
Medical College of South Carolina, South Carolina	3	1		2
University of Pennsylvania, Pennsylvania	3			3
	104	2	25	77

CONJOINT MEETING WITH THE STATE BOARD OF HEALTH.

The conjoint meeting with the State Board of Health was called to order at 12 M. of the second day. President Geo. G. Thomas in the chair.

Dr. Thomas spoke as follows: I can not let this opportunity pass, as a presiding officer of this Board without saying a few words, out of the fullness of my heart, for the good man Dr. Chas. J. O'Hagan. His figure was as striking as his character. He was eminently a good lover and a good hater, and I consider these good qualities. He yielded to no man in what he believed was law and order. He loved and upheld his friends whenever an opportunity came for the furtherance of whatever they sought to protect, and he stood a strong barrier against the encroachment of wrong not only in the Society, but in the world in which he lived. During the 30 years I have been connected with this Society I have no recollection of hearing any man speak unkindly, less than lovingly and admiringly of this good man who has left us. It was my good fortune to know him intimately and I thank God for it. I know I am a better and a truer man for that association.

The Secretary of the Board then made his report which provoked quite a discussion as to the diagnosis of smallpox.

DISCUSSION.

Dr, Anderson.—The case that occurred in town I watched closely from the time I was called until the patient was well. . The eruption came out about the second day, the fever continued until the fourth or fifth day. The eruption came out in consecutive crops and not a single one of these eruptions went to suppuration, and hence no secondary fever. I have never seen a case of smallpox where the pustules did not suppurate and have a secondary fever. You can not find an author, young or old, but that says it has an incipient course to run, that at about the 8th or 9th day the pustules erupt and produce secondary fever. I have studied the cases of my county since January and have not seen a single case where a single pustule suppurated. In all good conscience I did not feel like pronouncing it smallpox when I knew it was not. The gentleman sent for the expert and possibly before he saw the case he knew it was smallpox, and when I took him to the place the pustules were still hard and he said, oh! yes, it is smallpox. I said, doctor, I do not believe there is an expert under heaven who can tell it until it has time to develop and the fever develop. I wrote Dr. Lewis if there was any symptom whereby smallpox could be diagnosed other than secondary fever, I wanted to know it. One of the town physicians took this expert into the country, five miles without consulting me at all. The expert told me there were six or seven cases of smallpox there, one typical one. He said she had the secondary fever. I went there at once, put my thermometer in her mouth and her temperature was 99-5. I went back next morning and her temperature was normal, and that was the ninth day. There are a number of cases in our town that all the doctors call chickenpox, and that is one reason why it is so hard to quarantine. The doctors who complained the most would treat negroes for smallpox and white people for chickenpox, I would quarantine the negro. A good many people would go about there on the streets working, broken out.

As for it being smallpox, we have had all those cases and only one death, and that was an old man who had a chill and was sick nine days before the eruption. The Chairman of the Sanitary Board came over to consult with myself and I asked the Chairman of the Board of County Commissioners to get all the doctors together and lets discuss the matter, and I believe with unanimous consent, one doctor not giving his full consent to the action, we agreed that the thing to do was to let the matter go. Mr. Chairman, it is the right of every man in this hall to know how to diagnose smallpox. and he can do it.

Dr. H. W. Lewis.—This question of diagnosis illustrates the fact that doctors will disagree. In Portsmouth, Va., the same question arose. There is where North Carolina got the smallpox, though they claim they got it from us. Whenever they have had smallpox the question exists. I would like to ask the doctor if these eruptions appeared in people who had been successfully vaccinated.

Dr. Anderson.—Yes, sir.

Dr. Lewis.—Then I would ask him how did he know they were successfully vaccinated. Vaccination is one of the most deceptive things we have to contend with. People with sore arms, and even scars,have been shown not only to be susceptible to smallpox but to re-vaccination time and again. The vaccination to be thorough must exhibit the constitutional symptoms.

Dr. Anderson.—Two years ago we vaccinated about 1,500 people in our town. One of my boys did not take well and I vaccinated him again, when this scare came. It took well this time. Both my boys had this eruption, and just before I left home an old negro woman told me she had nursed smallpox in the war and had had this eruption on her. In the case of this woman who had the case which the expert pronounced genuine smallpox, I thought I had a test case there. Her two children had been vaccinated; her baby had not been. One of the children and the unvaccinated child took it at the same time. I never could get but one of the doctors to go but one time to see that case. On the eight or ninth day the eruptions were nearly dry. The unvaccinated child had slight spasms.

Dr. H. W. Lewis.—I do not deny the existence of chickenpox in the town of Wilson. Vaccinated people are frenquently not vaccinated. Last year a convict was discharged from the penitentiary farm, having been previously vaccinated. He went to Norfolk and returned to North Carolina with a case of smallpox. Upon that man's arm were two large scars inflicted by vaccination he had received at the State Farm. He had a very severe case of smallpox, he got well but came out thoroughly pitted, his face honeycombed. A certain proportion of cases will have variola. They sent in Norfolk and Portsmouth for marine experts and this disease without a dissenting voice was pronounced

smallpox. It was as mild as the eppidemic which has been described in Wilson. When a man is thrown in contact with eruptions such as severe cases of chicken-pox there is but one thing to do—quarantine the town. The more fuss you make the better. Some deaths are necessary to make people rush to vaccination for protection.

Dr. Fletcher.—For some time after we had some cases in our county I labored under the same delusion under which Dr. Anderson is laboring. I expected something more severe and formidable. From those mild cases we had there developed confluent cases of smallpox. I was forced to changemy diagnosis.

Dr. Anderson.—I think we must rely on some authority as to what these things are. Every physician at Wilson who saw the epidemic here said it was not smallpox, the laymen said they did not think it was smallpox. They told me that this man five miles in the country had confluent smallpox; it never became confluent at all. When the pustules fail to run together it is discreet. There has not been a confluent case in my county. The difference in New York smallpox and mine is that they die 20 to 25 per cent in New York, and in mine only one case.

There are some people who are not much susceptible, have to be vaccinated several times before it will take. I reported that fact to the sanitary committee and they reported the fact to the State Board of Health and he wrote to them saying that we had it in our hands to manage that, but we have not.

Dr. Lewis.—You can, but you do not want to.

Dr. Booth.—May not the Board of Health recommend that this careless mode of treating smallpox be discontinued? Let us get up a recommendation and try to stop this loose acting in our State. I am by the expert like I am by the Board of Censors: men who are competent to know have put him there. When he says a man has smallpox I am going to accept it as smallpox.

Dr. Battle.—I think it will be conceded that we have in this country a disease closely resembling smallpox and if it is smallpox it is a mild form. I believe Dr. Anderson is thoroughly consciencious, but I move that we get at the sentiment of this body as to whether it is reasonable to think that Wilson county would be immune from this disease that prevails over this State and the United States.

Dr. R. H. Lewis.—I think the proper thing to do will be to put a foot-note. Print Dr. Anderson's letter to me and print the opinion of the expert.

Dr. S. W. Battle.—I will say I do not think all discrete cases of smallpox have secondary fever. I think Osler says so.

Dr. Anderson.—I think he does not, sir.

Dr. R. H. Lewis.—That is not the kind of smallpox that we have in North Carolina and over the United States. In Ohio, Michigan and elsewhere the death rate is about 1 per cent. The epidemic that we have had in this country for the last three or four years has been very irregular, but it is undoubtedly smallpox. If the disease occurred in an adult the presumption was that it was smallpox.

Dr. Young.—Some time in the early part of the year I found a man sitting on my doorsteps and I invited him in. He told me he had been to Lynchburg, Va., for two or three weeks, but there was no smallpox there. I told him to go immediately home and not leave the house. He had a genuine case of discreet smallpox. father, mother, seven or eight brothers and sisters had it, discreet smallpox. Other cases mild in type were developed. There was no case that could have been mistaken for anything else than smallpox. He had secondary fever. We had Dr. Henry Long from Statesville, the smallpox expert. Dr. Anderson is in my opinion mistaken. I vaccinated the First North Carolina Regiment three times. I have seen the worst sort of arms, sores nearly to the bone and yet the vaccination had not taken.

Dr. Macon.—I would like to know if this disease which is spreading in North Carolina is not smallpox, what is it? It is a disagreeable disease and if it is not smallpox I think the people of the community should be quarantined anyhow. They may be used to scratching in the eartern part of North Carolina from the mosquitos but we people in our high healthy mountains do not love to be scratching so much.

What is the opinion of the expert worth if it its not to be regarded? If he proclaims smallpox what are you going to do about it? If there is no law behind him backing him take him out the field and save the expense and if there is a law let him enforce it.

It is the business man that objects to smallpox, he pats the doctor on the shoulder and says you will ruin our town. Take a stand promptly against these business people and they will be the first to come over and help you out. All discreet forms of smallpox do not have secondary fevers. This disease should be exterminated from North Carolina and can be done.

Dr. Anderson.—I want to say I had fourteen to sixteen boards of "Smallpox"

nailed up all over the town for three months. I wrote the Secretary I did not think it was smallpox but was doing it because the expert said so.

Dr. Booth.—The fine points about the diagnosis of smallpox are sometimes very pretty to talk about and very tiresome to listen to. There is an eruptive disease in North Carolina that whoever has it does not want to have it again. Vaccination prevents it, it has been proven that vaccination prevents it. I have very likely seen more smallpox than any man in North Carolina. I saw 7,000 cases in 1864-65. We have a much milder form of smallpox here than we had there in 1865. Still the characteristic symptoms are the same We all know from the days of Jenner until now if vaccination had been properly resorted to smallpox would have been exterminated from the earth. There is a spirit of careessness now existing among the doctors that is deplorable. I wanted to make a report to the county commissioners in my county about the various counties in North Carolina and Virginia and I wrote to the different counties to get the statistics. From Durham I got the reply: When the disease made its appearance we established a pest house and a house of detention. We had to establish another house of detention as the negros exposed thenselves in order to get fed.

We adopted this plan. When a man became a suspect we vaccinated him and kept our eye on him.
The great point the authors strain over is the last point. There is not an author I can find anywhere that says they have a secondary fever.

Dr. Herring.—All this smallpox that we have had here the last few years was largely caught from negroes. Everybody knows that this disease we have been discussing and disturbing ourselves so much about has not been so terribly fatal as smallpox used to be. It may be because it comes from the negroes. All you gentlemen know that to catch syphilis from a negro woman does not hurt you as bad as to catch it from a white woman.

Dr. Battle.—I think the doctor has raised a very interesting point in regard to the racial origin of the disease. There is no doubt but that the disease in this country is largely here from the returning soldiers from Cuba and Porto Rico. The soldiers have gone to their homes and scattered it all over the country. It may be that this disease is mild because it was mild in Porto Rico and Cuba.

Dr. Archie.—All the soldiers of Cuba were thoroughly vaccinated before going to Cuba, again in Cuba and again on their return.

Dr. H. W. Lewis.—The classical symptoms of a great number of these cases are absent, nevertheless the consensus of opinion of men calculated to judge, men who have been trained, particularly marine hosital experts is that the disease is smallpox. Their opinion must be regarded, and we must of course look to some authority outside medical books.

The discussion was then closek and the following members were elected to serve on the Board of Health:
Dr. S. Westray Battle, of Asheville, 6 years.
Dr. H. W. Lewis, of Northampton, 6 years.
Dr. W. H. Whitehead, Rocky Mt., 4 years.
Dr. Jno. L. Nicholson, of Richlands, 4 years.

Dr. Lewis.—The Surgeon-General of the United States Army has sent out a letter asking inquiries as to leprosy. If any of the gentlemen come in contact with any disease which suggests leprosy he will help them in diagnosis. So far as I know there is no leprosy in this State.

The conjoint session then adjourned.

Report on President's Message.

Your Committee appointed to report on the President's admirable address desire to submit the following:

That we endorse the address as a whole, and commend it to the favorable consideration of every member of the Society.

That the numerous valuable suggestions, if caried out, can but strengthen our organization and promote its growth and development.

To this endorsement we make one exception:

While we heartily commend the spirit of the suggestion of a prize fund of $1,000 for an original investigation which will be of permanent benefit to humanity, yet, in the opinion of the committee, it is deemed inexpedient to make an appropriation for that purpose at this time.

We desire to emphasize the great importance of the suggestion, that the present law regulating the practice of medicine in this State be so amended as to define what the practice of medicine means in a legal sense, and further advise that the Legislative Committee be instructed to give this matter their careful attention.

Geo. W. Long,
H. W. Lewis,
W. H. Harrell,
Benj. K. Hays.

REPORT OF THE OBITUARY COMMITTEE.

IN MEMORIAM.

A. J. Battle.
W. T. Cheatham.
D. A. Roberson.
S. J. Love.
C. J. O'Hagan.
Geo. L. Kirby.
Hunter McGuire.
L. A. Sayre.
N. L. Silevers.
S. L. Montgomery.
W. O. McDowell.
W. R. Hollingsworth.
E. H. Sugg.

Charles James O'Hagan.

"Le Roi est mort! The king is dead!" I have no doubt that thought came into the minds of most of us when we heard that Dr. O'Hagan was dead. Yet none of us desires to say "Vive le Roi!" His place in the affection and esteem of his friends and companions was unique and transcendent; it cannot be filled. And every man's heart is sorrowful at his absence from this convention.

In intellect he was a giant. His great mind was stored with the learning of the centuries and he never mistook the dross for the gold. His wit was sparkling, his sarcasm was pungent and piquant, his invective was terrible. He loved the ancient classics with their prodigal imagry and their close relationship to nature. He loved the rythmic swing of Horace, the flowing rhetoric of Cicero and the stately sweep of Homer. He loved the all embracing Shakespeare, the simple melody of Goldsmith, the stinging wit of Sheridan and the intense humanity of Burns. He loved them because he understood them and was akin to them—the divine kinship of Genius.

Perhaps the most remarkable trait in his character was his supreme and unbending honesty. He was honest in thought and word and deed. He did not know how to frame his lips to speak a lie or how to distort his body to act one. His life was an open book; all the world might read it and know his every thought and deed. "*Mens sibi conscia recti*" was the one rule and standard of his life. He was never influenced in his speech or conduct by the hope of reward or fear of punishment. He hated iniquity and he loved righteousness for righteousness' sake, but not the righteousness of the Pharisees and hypocrites. For deceit and treachery, whether spoken or acted, wherever he found it, in social life, in politics or in religion, he had only unconcealed loathing and contempt. He was ever ready and bold to defend the right though the heavens fell and he never stopped to count the odds. Conscious of his own integrity and the grandeur of his own white soul, the spectre of Fear never came before his eyes, and not once in all his long and useful and glorious life, did he ever to any man

"*Bend the pregnant hinges of the knee*
That thrift might follow fawniug."

And oh, the tenderness of his great, noble, human heart, his unselfish and unceasing devotion to his friends and his countless charities and kindnesses, wherein not even his left hand knew what his right hand did! His very presence was a benediction; his life one long benefaction.

Life is a narrow lighted space between two boundless and utter darknesses. We emerge from the one and after a little time in the light we are engulfed in the other, and no man can tell whence we came or whither we go. It is the greatest of all mysteries, the mystery of the Infinite, which the finite human mind shall never grasp or understand. We see our loved ones disappear into the darkness of the unknown and we are helpless; we can do nought but shed our unavailing tears and beat on the black, unyielding wall till we

turn away with bleeding hands and quivering lips and broken hearts, for no answer cometh. We cannot penetrate the darkness, we cannot even hear the echo of our own shrieks; we cannot comprehend the Infinite, Job, the Inspired Prophet, Poet, and Philosopher, cried aloud in his supreme agony,"

"If a man die, shall he live again?"

Dr. O'Hagan loved his profession, the greatest of all professions and the only one which is continually striving to terminate the necessity for its own existence. And he died as he had always wished to die, suddenly and painlessly, and in the complete plenitude of his wonderful powers. Just a few weeks before his death, standing in his favorite attitude before the fire in his own home, he quoted to me very pathetically this passage from Thackery, about the death of Colonel Newcome;

"*At the usual evening hour the Chapel bell began to toll and Thomas Newcome's hand outside the bed feebly beat a time. And just as the last bell struck, a peculiar sweet smile shone over his face, and he lifted up his head a little and quickly said 'Adsum,' and fell back. It was the word we used at school when names were called; and lo, he, whose heart was as that of a little child had answered to his name and stood in the presence of The Master.*

Was that a presentiment of what was then so near him? I do not know, neither can any one tell. It belongs to the Infinite. But this I *do* know, as I know that God reigns and judges men with unfailing justice, that wherever he went when he was swallowed up in the darkness of the further wall, whether it was in Paradise or in Nirvana, or in the Euthanasia he so dearly loved to talk about, or in the shining halls of the Valhalla—when the roll of the Immortals was called and the name of Charles James O'Hagan was pronounced, he arose and with that quiet dignity, that gentle grace, that superb poise of his royal head and a "Heart as that of a little child," he looked full in the face of his Lord and Master and answered, "Adsum."

B. F. Rodgers.

Mr. President and gentlemen: I cannot refrain, sir, from adding a few words on behalf of myself individually, I enjoyed the honor of the acquaintance and friendship of Dr. O'Hagan during the last 20 years of his life, and therefore claim the privilege of paying a tribute to this noble man, as I knew and apprehended him.

I am sorry, Mr. President, that I am unable to pronounce a fitting eulogy upon the life and achievements of this truly great physician and good man. This duty belongs to an abler tongue than mine, and to opportunities more ample than I possess. The whole country accorded to him while living, the praise of genius and the still higher praise of consecrating that noble and beneficient genius to suffering humanity.

I probably knew as much of Dr. O'Hagan's personal and professional history as any man of my age now living.

He was not only a man of genius, but was a lovable man, full of personal magnetism, fu'l of sparkling wit and humor, full of kind and tender instincts, alive to the romance that redeem life from common place and routine, and abounding in those high impulses which make their subjects benefactors, because they are enthusiasts in the persuit of truth.

No man could be an hour with him and not feel the simplicity and fervor of his nature. The straightforwardness of purpose and intent which went into all his intercourse with others.

For nearly a half century he persued his profession with energy and devotion, which were inspiring to himself as they were beneficial to medical science, and the welfare of humanity. The selfishness of renown had no charm for him. Distinction he valued as every high-minded professional man values it, for its influence and intended usefulness.

The frindship and affection, which valued his exalted worth and appreciated the beauty of his life, would not shadow his claims to the admiration and gratitude of the world, by exagerating them, or by saying he possessed none of the weaknesses common to human nature, he no doubt had his share of these.

It is known to his friends that he was sometimes fretful, impatient and intolerant about minor matters, or little crosses and when vexed or angered did not usually attempt to conceal his displeasure. I do not refer to these things as faults, for they, like his other traits but go to prove that he was a man without guile or deceit, too honest to dissemble, too noble to disguise. It was evidently through his superlative qualities of character and heart and rare grace of manner combined with his irresistable personal presence, that he won the exceptional popularity he everywhere enjoyed among men and women. Not only in the higher circles of society, but in the humble walks of life. A prominent and beautiful feature of his character was the kind and sympathetic interest he always

manifested in the younger members of the profession.

Although he had attained the period allotted to man, of three score years and ten, we deplore his loss, because we believe that the light of his genius had not grown dim with years.

Pardon me gentlemen, for a little personal allusion to myself, connected with Dr. O'Hagan. From the time I began the practice of medicine up to the period of his death, he was my warm and devoted friend, and I loved him as a father. He was open and confiding to his friends, I was proud of his confidence and affection, and gave him in return, the full measure of my own. I look back now upon my association with him, as one of the providences of my life, and his death as one of the bitterest afflictions.

D. T. Tayloe.

Discussion.

Dr J. Allison Hodges.—I want to make a motion that the paper of Dr. Taylor be incorporated with others and referred to the Committee on Publication. It gives me pleasure few of you can appreciate to have heard the tributes that have been paid to the memory of Dr. O'Hagan to-day. Never has this body met that my heart has not gone out to my friends in North Carolina, and I have never failed to remember the name of Chas. J. O'Hagan and when I came here to-day I confess that part of my mission was to pay a simple tribute to the man who welcomed me to this Association. This meeting has been saddened to me by the absence of that distinguished man of letters and of medicine from among us. Some time ago at the Virginia Medical Association it was my privilege to make a motion that has since been carried out that the name of a colleague of his and the memory of a colleague of his should be perpetuated in brass, one who stood high in the circle of professional education and professional attainments and I feel it is a great pleasure to me to-day to say that we ought to do something to perpetuate the memory of this man in North Carolina who to my mind was the equal of any man I have met in medicine in recent years. It is our duty as men who love our state and profession to do something to perpetuate the name of such a man. I do hope that some of the friends of Dr. O'Hagan can show a tithe of that undying love that we felt for him and we can perpetuate in some way the name of the man who was an honor to the South and to the profession.

Dr. R. H. Lewis.—In response to what Dr. Hodges has said I rise to call attention to the fact that it has already been proposed to have an oil potrait of Dr. O'Hagan presented to the State library.

Charles James O'Hagan M. D.

The medical fraternity of North Carolina as well as the general public have sustained a loss in the death of Dr. Charles James O'Hagan which is deeply deplored.

The summons came suddenly, December 18th 1900, as he was preparing to take his usual night's rest there was a slight struggle, and all was over, it would seem that "God's finger touched him, and he slept." He who had so often and so tenderly ministered to the sick and suffering was mercifully spared a long and painful illness.

Dr. O'Hagan was born in Belfast, Ireland in 1821, receiving his early education there; a part of his early life being spent in England and Scotland, he was however, quite a young man when he determined to seek fame and fortune in the new world across the sea. Landing in New York with a small amount of this world's goods, he possessed what was better far than riches, a strong character, the perfect integrity of which gained him the confidence and respect of all classes; a fine intellect which he trained and cultivated until he became the elegant polished man of letters and of science; he was also endowed with a keen wit which could become trenchant sarcasm. but was held in check by ready humor and a genial disposition; possessing splendid health and a handsome appearence he was a man among men; a friend whose friendshid was real, and much to be desired; a companion whose brilliant conversation could make dull hours speed gaily on, and in consequence his society was sought and greatly enjoyed by both men and women, for to the gentle sex he was ever a courteous gentleman of the old school.

The State has cause to cherish the memory of the man who adopted her in his youth, being led by a kindly destiny to her border's; first teaching school in the towns of Kinston, Hookerton and Greenville, where he finally located after taking up the study of medicine, and graduating with high honors from the medical college of the University of New York. He was facile princeps in his profession, being regarded as a great physician and surgeon whose splendid ability and quick discernment gave him a fine reputaion, his advices being frequently sought by his professional brethren in difficult or unusual cases. His practice therefore, was not confined to Greenville and its vicinity, for he had patients all over the State, and he was universally beloved by them.

He was a distinguished surgeon in the Confederate army having enlisted in Gen. Matt Ransom's Brigade, and he served the entire four years sharing the dangers and privations of his comrades with conspicuous courage and bravery; ever at his post healing the sick and wounded, or comforting, as far as possible, the brave fellows who lay dying beyond the reach of earthly skill.

If ever a history of the deeds of the Confederate surgeon is penned, the devotion and self sacrifice of Dr. O'Hagan should claim a part.

"———of the stories of valor
The lengeds that pass not away
Filling hearts and memories, and clinging
Like incense of years to the Gray."

Professional honors fell thick upon him, and had he been led by ambition alone, he doubtless would have been the recipitent of political honors as well, but his greatert and most enduring fame is the record he has left of devotion to duty and love to his fellow man.

Coming to us unknown, with none to lend a helping hand, he has placed his name high in the annals of the great and good men of North Carolina, leaving thus a rich heritage for his decendants as well as his professional followers.

O joy; that in our embers
Is something that doth live;
That Nature yet remembers
What was so fugitive!

Dr. W. T. Cheatham.

Dr. William T. Cheatham, son of Isham and Jennie Wood Cheatham, was born in Granville county, N. C., April 29, 1832, and peacefully departed this life at his home, in Henderson, June 23, 1900.

He received only an academic education. But, notwithstanding this, with a vigorous intellect, sharpened and polished by his own efforts and application, he stood easily abreast with the men of his day in the front ranks.

In 1856 he graduated in medicine from the Virginia Medical College. From that time to the day of his death he was a most able, faithful and successful physician. He loved his profession, and gave his life to it with a strength of devotion that is rarely equaled. He did a great deal of charity practice. He ministered to the suffering of hundreds of poor families without remuneration.

His wish, often expressed to his family, was that he might die "in the harness." God granted his desire, giving him strength to visit his patients up to within a few hours of his death. He had more than a local reputation as a physician. His brethren abroad recognized and honored his high character and ability. He filled with marked ability many positions of honor and distinction in his profession. He contributed several valuable articles to some of the leading medical journals which attracted wide attention among the profession.

He was once Vice-President of the Pan-American Medical Congress, a member of the American Medical Association, and of the New York Medico-Legal Society. Ten years ago he was elected President of the State Medical Society, which position he filled in a most acceptable manner.

He was an able and faithful physician, a devoted husband, a kind father, a true friend, an ardent patriot, and above all a sincere and earnest Christian.

Dr. Geo. L. Kirby.

Dr. Geo. L. Kirby was born in the County of Sampson, near Clinton, July 11, 1834, and died of pneumonia at the State Hospital, at Raleigh February, 1901. He was educated at Clinton High School and acquired the knowledge of Civil Engineering, and assisted in the survey of the Florida Railway, also the Wilmington, Charlotte and Rutherford Railway. After this he began preparation for his life work, the practice of medicine, and graduated at the Long Island Hospital Cllege in Brooklyn, New York, with the degree of M. D., in the Spring of 1860. He very soon thereafter went abroad and in a Medical College of Paris engaged in the further prosecution of his medical studies, that he might be more thoroughly furnished for his professional work. He returned to the United States much earlier than he anticipated in consequence of the war between the States, and reached New York the day the City of Charleston was fired upon. Moved by the patriotic ardor that possessed so many of the young men of the South, he at once offered his services to the defense of the South, and entered the Confederate service at first as assistant surgeon of the Second North Carolina Regiment, and was afterwards promoted to the rank of Surgeon of said Regiment. In an engagement with the Federal army at Kelley's Ford, Virginia, he was captured and soon after his release was assigned to duty at Wytheville, Virginia, in charge of the Confederate Hospital.

In July, 1865, Dr. Kirby moved to Goldsboro, and at once began the practice of medicine.

In June, 1866, he was happily married to Miss Mary Greene, of Goldsboro, who

for nearly thirty-five years was truly a helpmeet to her husband, and during all these years scattered in his home and along his pathway as much sushine as falls to the lot of men.

To this union of heart and hand were born 10 children, 8 of whom survive, and all of whom were present at his death. After a very laborious and successful practice at Goldsboro, extending through a term of years reaching from 1865 to 1894 he was called to the Superintendency of the State Hospital at Raleigh, where death put an end to his honorable and useful life, consecrated to the relief of suffering humanity.

Dr. Kirby was a member of the State Medical Society, having joined at Raleigh, in 1867, and for six years was a member of the State Examining Board. Such in brief are the salient points in the history of a distinguished member of this Society—one, who, in peace and in war, as a private practitioner of medicine and as Superintendent of an Hospital for the insane of our state, for forty years dignified and made honorable his high calling. Probably no man now living knew the subject of this memoir better than the writer. For a quarter of a century we practiced medicine in the same city, and a number of years were in copartnership, and full opportunity was thus afforded to form a proper estimate of his character as a man and his abilities as a physician. Dr. Kirby was a modest man, quiet in manner and entirely free from ostentation, and in assemblies of his brethren, made no effort to impress his personality or his knowledge of medicine, and rarely engaged in public discussions. But he was a man of more than ordinary ability, and was possessed to an unusual degree of that highest and best faculty of the brain which we commonly call judgment. Though quiet in manner, he was fired by a laudable ambition to succeed in all his undertakings, and was a very laborous, intelligent, and successful practitioner of medicine. I believe there are or have been few of our number whose lives measured up to his in its fullness, and laboriousness of continued endeavor in behalf of the afflicted. At the age of sixty he laid aside the labors and anxieties of private practice to assume, perhaps, the more delicate and more responsible position of Superintendent of the State Hospital at Raleigh. Though the dew of the morning had long dried from his locks, the fire of youth seemed again to enkindle upon the altar of his heart; and his mind seemed enthused with a new ambition to give wider scope to his reputation in his new field of labor. Bringing to this new work the fruitage of a ripened experience as physician, and a mind of a fine business training, he diligently applied himself to the study of psychiatry, and with youthful enthusiasm was not long in attracting the attention of the State to his success as an alienist and manager of no ordinary ability. Here, as in private practice he was not content to lag behind, or be satisfied with the success attained by the multitude; but by diligent study and by observation of other hospitals, he was quick to adopt every advanced method of treatment sanctioned by his judgment, and his record in the hospital over which he presided is of more enduring form than any words I can utter, and is worthy the ambition of any man.

Imperfect as this memoir is, it would be more so did I fail to speak of the higher inspiration of his life which was born of faith in the great physician. Dr. Kirby was a Christian. In early life he became a member of the Presbyterian Church, and for a number of years was an Elder, and lived and died in the faith and hope which its doctrines inspire in the true believer. I need say no more. J. F. MILLER.

Edgar H. Sugg, M. D.

The subject of this sketch, the late lamented Dr. E. H. Sugg, was born in Snow Hill, N. C., on Oct. 18th, 1867, and died at his native home on December 11th, 1900.

Dr. Sugg was preparred for college at Davis' School and fitted for his life's work, the practice of medicine and surgery, at the University of Virginia, and of the City of New York.

The deceased was admitted and licensed to follow his profession by the State Board of Examiners at the annual meeting of the Medical Convention at Elizabeth City, in 1889. Since this time and until his death, a period of eleven years, he has steadily and with merited success and profit lived the life of a country doctor.

Charitable, sympathetic and loving, his work and his peopls, he had greatly endeared himself to his numerous patients, who, in his death, lose a friend as well as a trusty and faithful family doctor.

He was especially the friend and benefactor of the poor. Oftimes with no price or reward other than the eternal love and gratitude of the needy, the consciousness of duty done, but the pleasure resultant from frail humanity, strengthened and relieved, he has contributed freely and gladly his time and experience and means for the purchase of necessary mediicne and proper nourishment and has thereby made for himself a monument that will endure when his

body and memorial of stone have long ago returned to their native elements.

Indeed, it is with sadness that his large number of friends and associates realize their loss and truly do they sympathize with an aged father and mother in their sorrow and anguish. AMICUS.

Dr. D. A. Roberson.

Dr. D. A. Roberson, son of Henry P. and Lucy Beard Roberson, was born at Florence, Guilford Co., N. C., Feb. 5, 1852. He married Miss Fannie Barker of Summerfield, N. C., with whom he lived most happily. She, two daughters and a son survive him. He attended lectures in Baltimore, where he graduated in 1884. He began practice at Friendship, afterwards moved to Guilford College, and was soon elected by the Board of Trustees as College Physician, which position he held in a most acceptable manner until the time of his death. He was an earnest student in his chosen professon, and did a good deal of post-graduate study in Baltimore and New York. After a painful illness extending over several months he died July 19, 1900.

Dr. Wm. R. Hollingsworth.

Dr. Wm. R. Hollingsworth, son of James M. and Elizabeth Hollingsworth, was born Jan. 14, 1836, in Surry Co., N. C., and died May 14, 1901, at his home at Mt. Airy, N. C.

On Aug. 15, 1865, he was united in marriage to Susan Eleanor Davis of Stokes Co., N. C. who, with three sons and three daughters, survive him.

He was ateending lectures at Jefferson Medical College when the South withdrew from the Union: he came home; was commissioned Surgeon by Governor Ellis, and during the war performed his duties under orders, in Surry and adjoining counties. After the struggle was over he returned to Jefferson Medical College, from which time-honored institution he received his diploma March 1867.

He was devoted to his profession, and put his life into the amelioration of human suffering. As was aptly said of him "he practiced medicine not for what he got out of it, but for what he could put into it." He was true, conscientious, modest, gentle and beloved. Impelled by nobelest impulses, his code of ethics was the embodiment of true politeness, honesty of purpose, and loyalty t the professiono he adorned.

Dr. A. J. Battle.

Dr. A. J. Battle, was born at Wake Forest College in 1851, there he received his literary education. He was a man of sound practical judgement, modest and unassuming in manner, and loyalty itself to his friends.

Upon borrowed money he prosecuted his medical studies at the college of Physicians and Sergeons of Baltimore, graduating in 1879.

He began practice in Johnston Co., where he was very successful, and his influence for good was unmistakably felt in that community.

In 1893 he moved to Wadesboro where he soon built up an appreciative and extensive practice.

In January 1900, on account of his failing health, he was persuaded to give up his work, which he reluctantly did, and spent the remainder of the winter in Florida, hoping to mitigate the symptoms of his fatal disease, which he realized could not be cured. He returned to Greensboro with his brother where he died with Brights disease on June 19, 1900.

He was a friend to education which he proved by helping two institution in a very substantial way.

S. J. Love.

S. J. Love, Long's Store, N. C., was born Jan. 28, 1871; joined the society 1898; died, Sept. 4, 1900.

Dr. Nathaniel Shober Sievers.

Dr. Nathaniel Shober Sievers, was born in Salem, N. C. Nov. 15, 1884. He was educated at the Salem Boy's School, Nazareth Hall, Penn., and under a private tutor until the close of 1863, when he joined the 21st N. C. Regt. and served in the Confederate army until the close of the war. He graduated in medicine from the University of Pennsylvania in 1867. The two following years he studied his profession in Berlin, Prague and Vienna, and began the practice of medicine at his native place in the autumn of 1869.

Without rest or recreation, he devoted all his energies to the arduous duties of the profession for nearly thirty years. His unwearied faithfulness was rewarded by distinguished success. Nearly four years ago his health broke down under the pressing strain. From its incipiency, he was fully aware of the nature of his disease—Locomotor Ataxia, and in full posession of his mental faculties he bore his fearful pains and steadily increasing helplessenss, with characteristic courage and patience. Having thus endured, he was granted a happy rest Jan. 12, 1901. His age was 55 years.

Dr. Sievers possessed in a degree the qual-

ities of a true physician. He was quiet and earnest, patient and conservative, pains-taking and resourceful, reticent but positive in his convictions, thoughtful sympathetic and scrupulonsly conscientious. With a sincere love for study, he was endowed with a retentive memory, a broad mental grasp and a remarkable faculty for analysis.

He was just without malice, generous without ostentation,a good citizen, a model husband and father, and above all a pious humble christian. His untimely death is lamented by all who knew him.

Dr. Wm. O. McDowell.

Dr. McDowell was born at Milton, N. C., Oct. 9th 1851, graduated at Wake Forest in 1873, took a two years course at the University of Virginia and received his degree from the University of Pennsylvania in 1875, practiced a few months in Union, N. C. and then moved to Scotland Neck, where he labored until his death, August 15th 1900.

He joined the State Society in 1883.

Dr. Samuel L. Montgomery.

Dr. Samuel L. Montgomery, son of Dr. J. H. and Mary A. Montgomery was born in Montgomery County N. C. on Aug. 9th 1854, and died in Apex, N. C. Oct. 26th 1900.

He was educated at primary school and then at Trinity College, N. C. read medicine with Dr. W. H. Lilly of Concord N. C. and graduated at the Medical University of New York, was licensd by the State Board in Durham, N. C. in 1885.

He settled in Monroe N. C. there married Miss Cora Winchester Nov. 22, 1882 who died Oct. 11th 1890. Dr. Montgomery then moved to Concord and formed acopartnership with Dr. Lilly, was mairred again June 1st 1892 to Miss Lizzie B. Norris, who with five children survive him. His health being bad he went to Apex to rest and recuperate and died there unexpectedly. He was a member of the Methodist Church. Dr. Montgomery was a successful practitioner. He possessed strong common sense and was a good student. He was generous, true and especially kind to the poor. He enjoyed not only the respect but also the confidence of all classes.

Repeated attempts were made to secure data concerning the life and death of other members of the Society deceased since the last meeting, but without success.

JOEL HILL, CHM.
JOHN C. RODMAN
* W. T. CHETAHAM.

*Deceased, June 23, 1900.

Report of the Board of Censors.

THE ACADEMY OF MEDICINE OF DURHAM VS. DR. R. A. MOORE.

To the Medical Society of the State of North Carolina:

Gentlemen:—The Academy of Medicine of Durham, through a committee appointed for that purpose, have presented to your Board of Censors, certain charges and specifications against Dr. R. A. Moore of Durham, asking that this Board of Censors recommend to your honorable body that the membership of Dr. Moore, in this Society, be annulled.

Your Board of Censors have heard the evidence in this case and beg leave to report, that it appears that Dr. Moore did become a member of the Society, by virtue of a certificate of registration issued by S. M. Holt, Clerk of the Superior Court of Chatham county, which registration was not lawful, inasmuch as Dr. Moore did not practice medicine before the 1st of January, 1885, or exhibit a diploma issued before the 7th of March, 1889, and that under such registration he was not entitled to membershid as provided for in Article 3. Section 2, of the Constitution.

It does appear, however, that in 1897, Dr. Moore presented himself before the Board of Medical Examiners, at which time he told the Board of Examiners that he was then satisfied that his registration was illegal, and asked for an examination from the Board of Examiners, knowing that a license from that Board would cure the error which had been made and by which he entered this Society. It does not appear that any protest was made against such examination, alleging immoral conduct, or acts prohibiting the Board of Examiners from admitting him to examination. He did appear before said Board of Examiners, was examined and licensed as attested by the certificate of said Board in the form of a regular license issued under the hands and seals of all of the members of the Board, and therefore, he is now a lawful practitioner of medicine in the State of North Carolina, and entitled to the rights and privileges accorded by the statute regulating the practice of medicine. In view of these facts, this Board of Censors find no sufficient reason to recommend that Dr. Moore's name be stricken from the roll of the Society.

All of which is respectfully submitted.

G. G. THOMAS.
M. H. FLETCHER,
R. H. SPEIGHT,
L. J. PICOT,
C. M. POOLE.

Report of Finance Committee.

DURHAM, N. C., May 22, 1901.

We, your Committee on Finance, having examined the books and vouchers of the Treasurer, beg leave to submit the following report:

RECEIPTS.

May 23, 1900,	To balance on hand,	$127.71
" 25, "	" Am't received as dues,	473.00
Oct. 11, 1900,	" Am't received as dues,	158.00
May 20, 1901,	To am't received as dues,	67.00
	Total receipts,	$825.71

EXPENDITURES.

May 23, 1900,	By cash Dr. G. W. Pressly, salary,	$125.00
	By cash Dr. G. W. Pressly, Secretary Stationery, etc.,	114.64
	By cash C. M. Cates, Stenographer,	25 00
	By cash rent of type writers,	2.40
May 25,	By cash G. T. Sikes, Treasurer, salary,	100,00
June 11,	By cash News & Observer Printing Co., Printing,	5.00.
July 12,	By cash Queen City Printing Co., paper,	8.25
Sep. 29,	By cash Postage for Treasurer,	5.04
Oct. 11,	By cash Queen City Printing and Paper Co., for Transactions,	303.00
May 20, 1901	Postage to Dr. Sikes, Treasurer,	.60
	Total,	$688.93.

Balance on hand May 20, 1901, $136.78

We recommend the usual assessment of $2 per capita; that the salary of the Secretary be $125, and that of the Treasurer be $100 for the next year.

We recommend that a Stenographer be employed at a maximum salary of $25.

C. M. POOLE,
W. S. ANDERSON,
L. J. PICOT,
N. P. BODDIE.
ISAAC M. TAYLOR.

Report of the Committee on Nominations.

Orator—John C. Rodman, Washington.
Essayist—Eug. B. Glenn, Asheville.
Leader of Debate—A. A. Kent, Lenoir.
Board of Censors—H. W. Lewis, A. Cheatham, Oscar McMullan.
Publication Committee—Geo. W. Pressly, John C. Montgomery, R. L. Gibbon.
Legislative Committee—R. H. Lewis, S. W. Stevenson, Abner Alexander, C. M. Poole, H. A. Royster.
Obituary Committee—E. G. Moore, Jno. M. Manning, J. A. Burroughs.

New Members for 1901.

Clyde C. Cotton, Black Mountain.
E. B. Meadow, Oxford,
J. H. Manning, Rocky Mount.
C. D. Jones, Hillsboro.
W. T. Parrott, Kinston.
Edward Baum, Greensboro.
Watson S. Rankin, Erskine.
Wm. J. Thigpen, Tarboro.
W. P. Holt, Williardsville.
Wm. A. Graham, Durham.
Chas. Roberson, Greensboro.
B. S. Herring, Wilson.
R. H. Speight, Jr., Wrendale.
W. F. Hargrove, Tarboro.
W. H. Dixon, Edward.
Hoagland C. Davis, Fayetteville.
G. M. Maxwell, Davidson.
R. L. Halloway, Durham.
C. A. Adams, Durham.
James M. Judd, Sippahaw.
P. J. Macon, Warrenton.
R. E. L. Flippin, Pilot Mountain.
P. A. Nichols, Washington.
W. V. Hicks, Durham.
J. M. Kelly, "
Geo. W. Landis, "
C. W. Banner, Greensboro.
Jno. M. Manning, Durham.
Jno. L. Moore, Apex.
H. Brantley, Spring Hope.
W. T. Griggs, Poplar Branch.
Z. T. Brooks, Durham.
Wm. P. Swett, Southern Pines.
Wm. J. Moon, Asheboro.
W. D. Young, Durham.
E. M. Brown, Washington.
J. Ernest Stokes, Salisbury.
Thos. M. White, Belvidere.
H. G. Utley, Maxton.
J. H. Duke, Jr., Asheville.

Members Present.

The following signed the Registration Book at Durham:

W. S. Anderson, Wilson,
Thos. E. Anderson, Statesville,
Albert Anderson, Wilson,
M. R. Adams, Statesville,
J. A. Allen, Poindexter,
C. A. Anderson, Burlington,
L. M. Archey, Concord,
C. A Adams, Durham,
T. A. Ashby, Baltimore, Md,
N. P. Boddie, Durham,
H. Brantley, Spring Hope,
E. M. Brown, Washington,
Julian M. Baker, Tarboro,

John G. Blount, Washington,
James A. Burroughs, Asheville,
H. T. Bass, Tarboro,
L. P. Aaron, Mount Olive,
A. C. Boyles, Mount Tirzah,
R. V. Brawley, Mooresville,
J. T. J. Battle, Greensboro,
S. Westray Battle, Asheville,
M. Bolton, Rich Square,
B. Ray Browning, Littleton,
G. M. Bell, Wakefield,
Edward Baum, Greensboro,
H. H. Bass, Henderson,
E. H. Bowling, Luster,
J. Steven Brown, Salisbury,
H. T. Bahnson, Salem,
K. P. Battle, Jr, Raleigh,
A. T. Cotten, Morrisville,
A. G. Carr, Durham,
E. H. Cearts, Raleigh,
A. Cheatham, Durham,
E. F. Carbell, Sunbury,
J. M. Covington, Jr, Wadesboro,
G. A. Coggeshall, Henderson,
C. E. Cotton, Black Mountain,
T. W. Davis, Winston-Salem,
James F. Dicks, Walkertown,
Francis Duffy, Newbern,
H. H. Dodson, Milton,
W. W. Early, Aulander,
S. F. Flippin, Siloam,
R. E. L. Flippin, Pilot Mountain,
M. H. Fletcher, Asheville,
Robert J. Gill, Henderson,
W. T. Griggs, Poplar Branch,
Wm. A. Graham, Durham,
W. R. Goley, Graham,
D. L. Garland, Rabun Gap, Ga,
E. B. Glenn, Asheville,
D. A. Garrison, Bessemer City,
Joe. Harris, Greensboro,
W. V. Hicks, Durham,
J. R. Hester, Prospect Hill,
Joel Hill, Lexington,
N. B. Herring, Wilson,
B. F. Hallsey, Roper,
W. H. Harrell, Williamston,
Michael Hoke, Atlanta, Ga,
W. C. Hoeton, Wakefield,
B. K. Hays, Oxford,
R. L. Holloway, West Durham,
Louis F. High, Southern Pines.
H. H. Harris, Wake Forest,
W. P. Hunter, North Wilkesboro,
F. R. Harris, Henderson,
J. Allison Hodges, Richmond, Va,
L. H. Hill, Germanton,
Theo. Hooks, Fremont,
F. E. Hartsell, Big Lick,
W. D. Isley, Rock Creek,
W. P. Ivey, Lenoir,
C. A. Julian, Thomasville,
Jas. M. Judd, Sippahaw,
J. D. Jenkins, Crisp,
N. M. Johnson, Durham,
R. W. Johnson, Oakdale,
Thos. M. Jordan, Raleigh,
P. C. Jorney, Olin,
A. A. Kent, Lenoir,
W. P. Knight, Haw River,
A. W. Knox, Raleigh,
H. H. Kapp, Bethania,
H. W. Lewis, Jackson,
Richard H. Lewis, Raleigh,
A. Y. Linville, Winston-Salem,
K. Leggett, Hobgood,
C. H. Lewis, Farmer,
George W. Long, Graham,
Chas. O'H. Laughinghouse, Greenville.
G. W. Lewis, Fremont,
Geo. W. Landis, Durham,
J. W. Long, Salisbury,
R. A. Moore, Durham,
J. F. Miller, Goldsboro,
E. G. Moore, Elm City,
Chas. B. McAnnally, Madison,
P. J. Macon, Warrenton,
John D. MacRae, Fayetteville,
T. F. Misenheimer, Morven,
John L. Moore, Apex,
Thomas S. McMullan, Hertford,
W. J. Moore, Ashboro,
John M. Manning, Durham,
W. E. Murphy, Carr,
S. J. Montague, Winston,
W. A. Monroe, Sanford,
W. W. McKenzie, Salisbury,
J. W. McGee, Raleigh,
J. W. McGee, Jr, Raleigh,
W. J. McAnally, High Point,
Oscar McMullan, Elizabeth City,
B. F. McMillan, Red Springs,
A. M. Moore, Durham.
T. V. Moore, Phoenix,
Jno. A. Myers, Lexington,
J. D. McPherson, Haw River,
J. P. Munroe, Davidson,
E. A. Moye, Greenville,
C. G. Nichols, Roxboro,
J. L. Nicholson, Richlands,
R. J. Noble, Selma,
P. A. Nichlson, Washington,
J. M. O'Kelly, Durham,
Geo. W. Pressly, Charlotte,
C. M. Poole, Craven,
James M. Parrott, Kinston,
J. R. Parker, Cisco,
R. M. Patterson Durham,
W. B. Pritchard, New York, N. Y.
Raymond Pollock, Kinston,
D. C. Parris, Hillsboro,
L. J. Picot, Littleton,
R. L. Payne, Norfolk, Va.
S. T. Pfohl, Winston-Salem,
A. S. Pendelton, Warrenton,
C. L. Prindle, Kinston,

J. K. Parker, Laws,
H. A. Royster, Raleigh,
Geo. H. Ross, E. Durham,
Geo. J. Robinson. Smithfield,
John C. Rodman, Washington,
L. A. Rutherford, Kinston,
Chas. Roberson, Greensboro,
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G. T. Sikes, Grissom,
J. F. Swann, Cuningham,
O. P. Schaub, Roxboro,
J. W. P. Smithwick, La Grange,
S. W. Staly, Liberty,
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J. Ernest Stokes, Salisbury,
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W. G. Stafford, Burlington,
J. A. Smith, Durham,
R. A. Reynolds, Danville, Va.
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I. M. Taylor, Morganton,
John Thames, Greensboro,
Wm. J. Thigpen, Tarboro,
D. T. Tayloe, Washington,
N. A. Thompson, Whiteville,
C. D. Thompson, Harden,
G. G. Thomas, Wilmington,
J. A. Wise, Roxboro,
R. H. Whitehead, Chapel Hill,
W. H. Whitehead. Rocky Mount,
B. S. Utley, Maxton,
T. P. Wynn, Tarboro,
Jno. B. Wright, Granite Falls,
J. Howell Way, Wayneville,
M. P. Ward, Gorman,
Wm. Cobb Whitefield, Quinerly,
T. B. Williams, Ridgeway,
Rudolph Winslow, Baltimore,
W. H. Wakefield, Charlotte,
John L. Wentz, Pine Ridge,
J. A. Williams, Reidsville,
G. C. Woodruff, Sparta,
J. C. Walton, Reidsville,
R. S. Young, Concord,
W. D. Young, Durham.

MISCELLANEOUS.

Head-Knocking.

A case is reported in a rickety child of thirteen months old exhibiting the phenomenon known as "head-knocking." This consists in the child banging its head with more or less force against any hard object, such as the floor or the wall. In this particular instance the symptom was very carefully observed by Dr. Aldrich, and he describes the child as being neglected and cachectic. As a consequence of the continual knocking the face, head, and neck were covered with contusions, and it was not unnaturally at first thought when the child was admited to hospital that the infant's mother was not speaking the truth when she declared that the injuries were self-inflicted. In hospital the child, directly it was put into its cot, commenced to beat its head against the rails, and when this was prevented it proceeded to batter its head with its hands. The undoubted possibility of the occurrence of this phenomenon is of importance from a medico-legal point of view, because had the child been dead or too ill to carry on any longer its self-chastisement before death, it is very probable that it would have been extremely difficult to convince a jury that the child's parents had not themselves inflicted the injnries and thus caused death. The phenomenon is one of such an obscure nature that more attention should be paid to the investigation of its causation and occurrence, especially when it is recognized that it has a medico-legal bearing.—*Medical Press.*

The Etiology of Malaria.

Sangiovanni accepting the proved relationship between the mosquito and malaria, offers a suggestion as to the reason why districts are malarious and others free from this disease. The presence or absence of marshes, of water, or the relative height above sea level, are not sufficient in themselves to explain the presence or absence of the mosquito. Like any other animal, the two most important factors in its life are the question of reproduction and,above all, nutrition. Water must exist for the purposes of the ova, but it is not necessary that there should be large areas of stagnant water; small puddles might answer. As to nutrition, we know the female is largely nourished on blood, but Grassi has found one with chlorophyll in its istestines, so the female may even be phytophagic, and the male we know is. Hence it is possible that the malarial or non-malarial character of a district may turn on the character of its flora; if this is of such a nature as to provide adequate nourishment to the male mosquito, the pestiferous tribe will thrive and develop, and the district remain malarious, and vice versa. As to the exact nature of the flora, the author is silent, but suggests future work should be done on these lines. —*Brit. Med. Journal.*

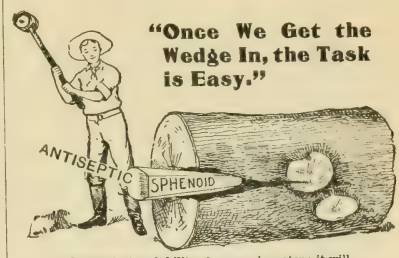
Sponianeous Inversion of the Uterus Aftet Each of Two Labours.

Gilbert reports the case of a woman, aged 36, at her fourth labour, bore after five hours. The placenta followed spontaneously in fifteen minutes. and she had no after-pains. An hour after delivery she rose, went down a long and steep stair to bring water from a well a hundred yards away. She carried it up stairs on her shoulder, and at the top fainted. When she came to and crept to bed she noticed that a large body protuded from the vagina. There was no bleeding. Gilbert, who was called in after seeing a scarlet fever case, disinfected as well as he could, and found a child's nead swelling with clots, sand dirt sticking to it. He cleansed it with carbolic lotion, and returned it easily by pressure on the fundus. She was ordered to stay two weeks in bed, and the rest of the puerprium was normal. Two years later he was summoned to her with the message that she had again been delivered spontaneously, and she was bleeding. The distance was long, and he found extreme acute anæmia, with impaired consciousness and restless tossing. Reposition was easy. Bleeding had ceased, but, in spite of free injection of salt solution into cellular tissue and rectum, and the use of other measures, she died twenty-five minutes later.—*Brit. Med. Jour.*

Sanmetto in Enlarged or Atrophied Prostate, with Urinary Difficulties.

In cases in which I have had occasion to use Sanmetto are quite numerous and varied, both acute and chronic, and when indicated have produced very satisfactory results, both to me as well as to the patient. For a period of three years Sanmetto has been my sheet-anchor in the large majority of cases of prostatic and urinary difficulties, both in enlarged prostate as well as atrophied conditions. I may sum up the whole category of prostatic and urinary ailments, and say in my experience that Sanmetto covers more general indications and is more reliable in any hands than any other remedy. I use and have great confidence in Sanmetto.

Chicago thinks of flushing the streets to keep them clean, while Milwaukee is about to abandon the method for a dry sweeping patent process which draws the dust and dirt by an air-blast into a chamber so that it is not blown or scattered about If it works, the patentee of the machine should have his million dollar reward.



To demonstrate solubility, drop one in water; it will disintegrate in thirty seconds.

Antiseptic Sphenoids

The Twentieth Century Treatment for

Vaginal and Rectal Troubles.

ANTISEPTIC. ASTRINGENT. CURATIVE.

One each night, introduced into the vagina well up to the uterus, gives prompt and permanent relief in all forms of Vaginal Catarrhs, whether specific or non-specific. For Hemorrhoids and Sphincter Troubles, cover with petrolatum to facilitate insertion. **Send for Free Sample and Literature.**

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An Addition to Our Next Materia Medica Earnestly Recommended.

For many years I have prescribed Sanmetto extensively, and I should assassinate Truth were I to assert that, in a single instance, the results were otherwise than wholly satisfactory. There is not a form of genito-urinary inflammation wherein I have not used it. I can sincerely and earnestly recommend its addition to our next Materia Medica.

A MAZETTA ROWE, M.D.,
Glascow, Ky.

Dr. Richard Eiche.

Of Clevehand, Ohio, writing, says: It is doubtless of great value to the medical profession that we have a remedy at our command like Sanmetto. I have used this remedy with much success in irritation and inflammation of the neck or bladder, in prostatitis in nervousness arising from irritation of uterus, ovaries and testes, in incontinence of urine and in old cases of gonorrhea and gleet. This remedy also powerfully influences the reproductive apparatus. It is not here my intention to waste space in pathological discussions, but will say that Sanmetto is a weapon in the hands of the physician, and a backbone to the worn and old of both sexes."

The Stethoscope and Phthisis

The characteristic of the newly-qualified practitioner is an implicit reliance on instruments for facilitating physical examination. He hardly looks at the patient, but proceeds with an enthusiam tempered by anxiety to explore the various organs which are accessible to the stethoscope or other mechanical appliance. As he acquires experience he learns that there are other means of arriving at a conclusion, as indeed there must be, seeing that our predecessors were by no means contemptible diagnosticians at a time when the syhygmograph, the stethoscope, and the ophthalmoscope were unknown. It is, perhaps, especially in phthisis that too blind a devotion to the sounds revealed by the stethoscope is apt to mislead. The absence of audible evidence of internal lesions is a remarkable fact in many cases of even advanced phthisis, and physical signs may come and go in a way that baffles explanation and discourages the investigator. In such cases a wider survey of the patient will usually reveal indications amply sufficient to enable the physician to arrive at a diagnosis even in the absence of stethoscopic signs. The latter when present are important, though not infallible, but it is important that the practitioner should not put on blinkers and shut out from view the information to be gathered from an attentive inspection of the patient viewed as an independent and composite organism. The microscope is another instrument which often fails to give positive support to a diagnosis which the clinical signs fully justify. In the words of the writer of a recent article in the Polyclinic, "We must not on account of these facts underrate the value of the instrumental aids to diagnosis which modern science has put into our hands, let us however carefully keep them in their place and not permit them to usurp an authority to which they are not entitled, above all let us not allow exagerated trust in them to displace the most sedulous cultivation of other and older methods."—*Medical Press.*

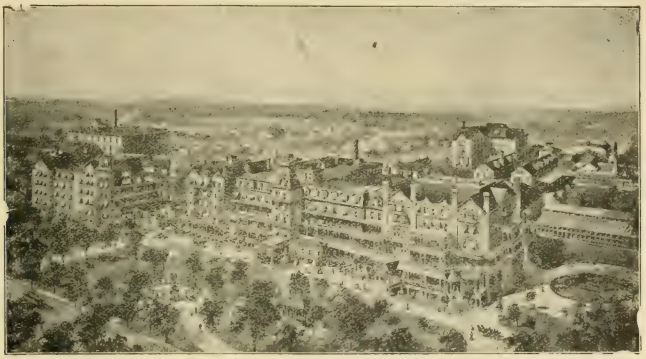
Medical Certificates and their Value.

Under the peculiar circumstances that rule the ethical life of the medical profession it is perhaps just as well that some amount of censorship should be wielded now and then from outside sources. In this chastened spirit we accept criticisms of the kind, caustic and otherwise, from the editors of various journals that profess to direct society in general to the narrow pathway of rectitude and probity. Take the question of medical certificates, of which enormous numbers are issued every day of the year, some of them gratis and others paid for in coin of the realm to varying amounts. There can be no doubt whatever that medical men sometimes grant certificates without due and proper inquiry. In a case of the kind, recently commented upon in the columns of Truth, a medical certificate of illness had been presented monthly for fifteen months to account for the non-appearance of a debtor in the Aberdare County Court. The suspicions of the creditors were aroused, and inquiry showed that the alleged sick had been at work as a haulier during nearly the whole of the period covered by the certificates. The incident shows that the greatest care should be exercised in granting certificates of disability from illness. Our contemporary, by-the-bye, would be doing a great service to the medical profession by pointing out that they are obliged to grant without fee certificates of death, documents that often play an important part in legal proceedings. What other profession would consent to fill up papers of such responsibility without adequate remuneration?—*Medical Press.*

Painless Labors.

O. Mace (L'Obstet., vi, p.. 54, January, 1901) reported at a recent meeting of the Obstetrical Society of Paris two cases of painless confinement. In the first the patient was a primipara of 20 years of age; and until the dilatation of the cervix was complete, and efforts at expulsion had commenced, the uterine contractions were quite painless. In the second case, the mother, aged 25, a tripara, had previously had very rapid labors; she awoke in the middle of the night without pains, but during micturition the fœtal head appeared at the vulvar, and was soon born, with one of the parietal bones fractured, although there had been no interference, no rupture of the cord, and no falling of the child upon the ground. The medico-legal interest of the cases, and especially of the second one, was self-evident. In the discussion which followed Mace's communication it was suggested by Bar that the fracture might be a developmental anomaly, but Budin did not think that it clearly marked characters pointed to such a conclusion.—*British Medical Journal.*

If you have a patient that is subject to furunculosis, administer sulphate of calcium in quarter-grain doses every two or three hours and there will be no more crops of boils.



The Battle Creek Sanitarium

Is a place where chronic invalids, especials ly those suffering from the various form, of indigestion, diseases peculiar to women, constipation, chronic malarial poisoning, anæmia, obesity, the uric acid diathesis-neurasthenia. migraine, and similar ailments are trained into health by the aid of systematic regimen, scientific hydrotherapy, massage, Swedish movements, Swedish gymnastics, and other rational means. Most cases of Bright's disease, diabetes, locomotor ataxia, and many other maladies which are incurable under ordinary conditions, are greatly improved by the combined use of rational remedies and systematic regime, and many are practically cured. Extensive bacteriological, chemical, and microscopical laboratories connected with the institution afford excellent facilities for accuracy in diagnosis and original research.

The Institution is conducted strictly within ethical lines.

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THE SANITARIUM, Battle Creek, Mich,

Pneumonia more Fatal than Tuberculosis.

Pneumonia more fatal than Tuberculosis, is the teaching of statistics. In New York from 1890 to 1900, there were 56,092 deaths from pneumonia, and 50,490 from pulmonary tuberculosis, and in Chicago the relative figures are 25,288, and 22,975. The increased mortality from pneumonia is ascribed to influenza, which although also increasing the fatality of tuberculosis, does so to a much greater degree in the more acute disease, pneumonia. The fact that the first death from influenza in New York was reported in December, 1889, shows how suddenly the causes of death may change, and how quickly we must be prepared to deal with new and dangerous dis eases. The report of the New York State Board of Health for the month of March shows that influenza has caused about 1,500 deaths, and that 76 per cent of the deaths from acute respiratory diseases were from pneumonia. The fundamental condition underlying the rise and continuance of an accute infectious disease, such as influenza, is probably the tremendously increased amount of travel. Reinfection from new foci constantly occurs in places in which the disease is dying out, and every city or part of the country is bound up with all others by the railsoads. The problem of disease in a high state of civilization becomes more than ever one of prevention, and yet how slow is civilation to recognize and act upon the fact. Millions for tribute but not one cent for defense, is the motto of the modern "statesman."—*American Medieine.*

J. S. Fisher, M. D.,
1876 Pulte Med. Col., Member National Homeopathic Medical Association, Member Ohio State Medical Society and N. W. Ohio, Medical Society, and Toledo Medical Society.
Toledo, O.

The Rights and Duties of Medical Men.

A decision of the Southwark County Court Judge in a case in which a practitioner claimed payment after throwing up a case, sheds a new light upon judicial views of the medical man's duties and rights. Dr. A. Matcham was attending a child, and eventually declined to continue in attendance because the mother would not defer to his instructions in the matter of treatment, and he claimed payment of fees for "work done." Judge Addison gave judgment against the plaintiff on the ground that having thrown up the case, which he was entitled to do, he could not charge for his services. This is a somewhat remarkable decision, but it must, we trust, be considered only as applicable to this particular case, the judge evidently being of opinion that Doctor Matcham had acted wtth unnecessary precipitation. No one, not even a county court judge, we imagine, would hold that when a doctor throws up a case he is thereby necessarily and under all circumstances debarred from charging for services rendered. The responsibility for the treatment rests upon the practitioner, who has a right to, so long as he is retained in charge, to expect that his directions shall be observed. For him to continue to attend under all circumstances or to forego his fees is an alternative which does not commend itself to our idea of fairness or common sense, nor do we suppose that Judge Addison intended his decision to convey that impression. The calling of medicine is one which infers kindliness of character and impurturbable patience, but these considerations are foreign to the question of the right to charge for services rendered,—*Medical Press.*

It is announced that the dates of the next meeting of the Mississippi Valley Medical Association have been changed from the 10th, 11th and 12th of September to the 12th, 13th and 14th of September. This change has been made necessary because the dates first selected conflicted with another large association meeting at the same place.

The meeting is to be held at the Hotel Victory, Put-in-Bay Island, Lake Erie, O., and the low rate of one cent a mile for the round trip will be in effect for the meeting, Tickets will be on sale as late as September 12th, good returning without extension until September 15th, By depositing tickets with the Joint Agent at Cleveland and paying 50 cents the date can be extended until October 8th, This gives members an opportunity of visiting the Pan-American Exposition at Buffalo, to which very low rates by rail and water will be in effect from Cleveland.

Full information as to rates can be obtained by addressiug the Secretary, Doctor Henry E. Tuley, No. 111 West Kentucky Street, Louisville, Ky. Members of the Profession are cordially invited to attend this meeting.

Those desiring to read papers should notify the Secretary at an early date.

The Treatment of Lobar Pneumonia.

Hornung gives the result of his observations, which show that damage of the vasomotor centre is followed by acute dilatation of the heart. Such weakening, particularly of the ventricle, is one of the greatest dangers in pneumonia, in which the toxins of the disease itself are continually tending to break down the integrity of the vasomotor center, and therefore chloral, ether, and most of all alcohol, which have this same property, are to be wholly condemned, for since the formation of the specific pneumonia poisons is out of our control it is of the greatest importance not to augment its action by artificially introduced toxic agents. Even in alcohol habitues, when it is thought that the drug must be continued to obviate the occurrence of delirium, repeated observation has shown that the rational plan is to cut off the stimulant and substitute plentiful feeding. for the alcoholic delirium is simply a manifestation of inanition and must be combated as such. Of other stimulants, in spite of contrary opinions, the author holds that digitalis is not so slow in its action as is generally believed, and that though the typical pulse may not appear for several days, still a considerable reduction in size of the heart occurs speedily after the first dose. Camphor is highly praised as a rapidly diffusible stimulant. A heart tonic of undoubted value is to be found in cardiac faradization, which may be performed by placing one pole of an ordinary induction coil over the heart, while the other is passed over as much of the surface of the body as possible for ten minutes at a time. The effects of this electrization are manifold, for the vasomotor centre is stimulated, the rapidly repeated contractions induced by the current produced a very desirable form of massage, almost a 'cell-massage," whereby circulation is facilitated, and finally general mus-cular tone is stimulated.—*Medical Record.*

Painful deglutition in quinine may be relieved by a weak gargle containing cocaine.

A CERTAIN GONOCOCCIDE.

The value of Methyloids as a gonococcide resides not only in the combination of ingredients but in their purity.

Only pure methylene blue is safe.

Only pure santal oil gives good results.

We can detect any impurity in these drugs and therefore know that we use only the best.

To test these tiny, gelatin Capsoids without cost, ask us for samples, naming this journal.

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Dyspnœa in Goitre.

The extreme importance of dyspnœa in connection with an enlargement of the thyroid gland has been lately emphasised in a remarkable manner by the publication of Mr. James Berry's teaching on "The Diseases of the Thyroid Gland. In ninety-five instances out of the 126 cases in which Mr. Berry himself had to remove goitres the chief reason for the operation was dyspnœa. It is a matter of common observation, of course, that dyspnœa is frequently the sole reason for a patient with a goitre seeking medical advice, and to so great an extent does this disability interfere with the patient's breathing that he may live with a constant dread on impending suffocation hanging over him that may prevent him altogether from following any regular occupation. It appears from the statistics which are available in connection with this malady that the age at which fatal dyspnœa is most likely to occur is that of puberty, or soon after, and that at a later age it is women and not men that are most likely to be the victims of dyspnœa. The interesting subject of the relation of the age and sex, and the varieties of goitre that are most likely to produce dyspnœa, and particularly such dyspnœa as will endanger life, opens a very wide field for investigation, and it is to be hoped that Mr. James Berry's work in this difficult and somewhat obscure branch of surgery, will stimulate others to make full use of any facilities they may possess for the study of the diseases of the thyroid gland.—*Medical Press and Circular.*

Uncontrollable Vomiting of Pregnancy.

L. Lapeyre records a case of hyperemesis in a secundipara, aged 25, who had also a tumor. Until the peritoneal cavity was opened into per *vaginam*, it was doubtful whether the swelling, which existed in addition to the uterine enlargement was an ovarian cyst or an extrauterine gestation. It turned out to be an ovarian cystoma in the pouch of Douglas, and was easily removed by posterior colpotomy; at the same time the diagnosis of pregnancy was clearly established, the uterus was found to be inclined to the left side and was of the size of a two-months gestation. Notwithstanding the removal of the cyst the vomiting continued to be incoercible, and the induction of abortion by means of the introduction of a laminaria tent was rendered necessary. Twin fœtuses were extracted, and then the vomiting ceased, or rather it had ceased with the completion of the cervical dilatation. A good recovery was made. Lapeyre concludes from the study of this case and a comparason of it with others that in pregnancy complicated by he presence of an ovarian cyst hyperemesis is not more frequent than in simple pregnancy; that if uncontrollable vomiting does not exist, it is connected with the pregnancy solely, and not in any way with the cyst; and that therefore the removal of the cyst is useless in the treatment of the vomiting, which indeed requires the induction of abortion. He also regards the vaginal route for the removal of the cyst as the one to be adopted if pregnancy coexist.—*British Medical Journal.*

The Right to Expectorate.

The unscrupulous activity of the American social and sanitary reformer infallibly arouses a spirit of resentment on the part of those whom it is sought to coerce into conformity with current views. This spirit is appearent in the Press in States where promiscuous expectoration is punished on a scale which in this country, would be regarded as adequate for an unprovoked assault. A contemporary, protesting against this particular "encroachment on personal rights" argues that such cases ought to be dealt with by a jury and not by a police magistrate, on the ground that the offensive act ought only to be punished "if it be proven to have been malicious and with the intent to create a nuisance." Such a restriction would of course, render nugatory any laws or regulations prohibiting expectoration, and it would be better frankly to abrogate them. The moral to be learned from this explosion of resistance is that laws must not be too much in advance of public opinion. We must educate the public to a sense of the necessity of the law before we agitate for its enforcement. Sanitary science, in particular requires for its successful application the inteligent and willing cooperation of the units who make up a population.—*Medical Press and Circular.*

Three Thousand Intoxications.

A committee of the New York Academy of Medicine has come to the conclusion that as a rule a drunkard does not live more than fifteen years, and it has been computed that three thousand intoxications is about the limit of the resistance of the tissues. According to the evidence of the experts in the treatment of alcoholism, the ordinary drunkard of the present day takes three or four glasses of whiskey and about five pints of beer in the twenty-four hours. It would certainly be interesting to know on what scientific grounds the Academy of Medicine suggest that sherry produces a quarrelsome mood, while port tends to sooth. Champagne is credited with producing a decided exhilaration and flow of thought, a statement which lacks novelty; but the assertion that Burgundy causes men to think more slowly is, no doubt, correct, because after the experiments of Kræpelin it must be accepted that the ingestion of even a small quantity of alcohol lessens quickness of thought and lowers the total output of work. It is not of much importance to know that the majority of New York doctors drink claret and water, and on festive occasions lager beer and champagne, in moderation, nor is it of much moment to discuss the exact number of intoxications a drunkard can survive, but the discussion of these points should lead to the serious consideration of whether the habitual drinking of small quantities of alcohol is or is not harmful.—*Medical Press.*

Fœtus Retained Two Years in the Uterus.

Landucci (Centralbl. f. Gyn., No 5, 1901) relates the case of a woman aged 31 who was seized with pains and smart hæmorrhage at the sixth month; but these symptoms ceased gradually, and the fœtus remained in the uterine cavity for fully two years. During that period symptoms of pelvic inflammation appeared frequently, with vaginal discharge and diarrhœa. The period was regular. A recto-uterine fistula developed and blood and bones were discharged. The uterus was of the normal size at the third month; it crepitated on pressure, and was fixed to the rectum by adhesions. The cervix had become stricturred by caustics. Landucci split the cervix transversely, and opening the uterine cavity extracted the bones of a 6-months fœtus with some difficulty. The bones were in part embedded in the uterine wall, and were completely denuded of soft structures. The utero-rectal fistula closed of itself within a short time after the operation, and ultimately cure was complete.—*British Medical Journal.*

Santonin (Santonic Acid) in Tabetic Pains.

Negro has tried santonin with success in the treatment of the lightning pains of tabes. Of the 11 cases in which the drug was tried 8 were decidedly relieved, 2 temporarily relieved, and 1 unaffected. At first the author gave 15 grs. in three doses at intervals of three hours, and in subsequent attacks began with 10 grs., 5 grs. 5 hours later. The pain got decidedly less in three hours after the first dose, and completely ceased two hours after the second dose. So far, the author has only administered it during the crisis, not in the intervals. In one case it gave relief when a mixture of antipyrin and phenacetin had proved futile. None of the patients had this treatment more than four or five times in the course of two or three months.—*B. Med. Journal.*

Dr. Alfred Stengel has resigned the editorship of the American Journal of Medical Science. Dr. Francis R. Packard is to succeed him.

GLYCO-HEROIN.

(SMITH)

Coughs, Bronchitis, Phthisis, Asthma, Laryngitis, Pneumonia and Whooping Cough.

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A Judge's View of Medical Fees.

The County Court judge at Blyth has strong views upon the subject of the proper rendering of a medical man's account for professional services. He contended that doctors would never be on a satisfactory footing until they delivered a systematized account, like ordinary business people. If a medical man were asked for particulars he simply stared, and the present system gave room for extortion on the part of unprincipled persons. Judging from these remarks his Honor's experience must have been somewhat peculiar, for it is a well recognized rule in the medical profession at once to furnish details of services rendered when requested by patients. In the course of the above-mentioned proceedings the judge asked the plaintiff medical man what would be the attendance fee of the latter if called to himself. Upon hearing that the fee would be a guinea, he is reported to have said that under the circumstances he should not consult plaintiff. He concluded, however, that the charges sued for, seven shillings and sixpense for each visit paid to a well-known musician, were not excessive, and gave judgment for the whole amount claimed. The judicial mind is not apt to err on the side of extravagance as regards the scale of fees chargeable by medical men. To put the matter mildly, judges appear to share to the full public opinion as to the meagre value of medical attendance. They would not disallow a single six-and-eightpence to a lawyer for answering a telegram or a postcard, but do not hesitate to express their approval of fees of the same size, more or less, for skilled services that may have saved a patient's life. The legal fallacy here is disproportion.—*Medical Press and Circular.*

Urine examination during Gestation is very important and must be thorough in order to appreciate impending disaster. Marx in reviewing the toxemias of pregnancy has argued the importance of urea estimation in the investigation. The old time-honored examination for sugar and albumin is not sufficient; for in many desperate and malignant cases of toxemia during pregnnncy, there is found neither albumin nor tubecasts, while the urea is always found markedly diminished in the socalled toxemias or urinemias of pregnancy. Upon this progressive diminution of urea-secretion, with or without albuminuria, will depend the indications for induction of premature labor.—*American Medicine.*

Curious Phenomena seen in Typhoid Fever.

Baccarani, describing some more or less unusual symptoms observed by him in typhoid, mentions the pulsus paradoxus which was observed in one case during the fever and in convalence. It was not regularly present, and was apparently due to myocardial weakness. In the same was also observed the splenic cough—that is, paroxysmal cough—induced whenever the enlarged spleen was handled; when the spleen returned to its normal size this phenomenon could not be excited. In another case sciatorrhœa was a marked symptom. The diazo-reaction was negative, although very marked in the urine. Nothing abnormal could be detected in the salivary gland. In the same patient slight balanitis and ureteritis were also observed; no gonococci were present. In two cases moderate desquamation, chiefly confined to the abdomen and thorax, was noticed. A dystrophic pruritus was present on the fifteenth day in another case. With regard to treatment, the author speaks well of the practice of giving small water enemata every day in the constipation of early convalescence after typhoid. The palmo-plantar sign first described by Filipovicz in 1897 and consisting in a yellow discoloration of the palms of the hands and feet, was noticed in all the cases. It appeared to have no relation to the gravity of the attack. The common time of occurrence is on the fifteenth day.—*British Medical Journal.*

Oophorectomy and Cancer.

It has lately been so much the fashion to refer in somewhat vague terms to the so-called treatment of inoperable cancer by the removal of the ovaries, that it is helpful to put on record the views of Mr. Watson Cheyne, who, in discussing a case the other day in which any attempt to remove the cancerous disease was out of the question, said that he was rather tempted to remove the ovaries, for though he had not cured any parient by that means, he had seen remarkable improvement as an immediate result. In this very woman, however, after Mr. Watson Cheyne had removed the ovaries the disease has spread very considerably since the operation. In his experience,and it is the experience of others also, marked improvement generally follows the operation, but after from six to eighteen months this effect disappears. It may be that removal of the ovaries takes away something essential for the life of the cancerous cells, or which is at all events of great importance to them, and that after some time some other organ furnishes the secretion, and thus makes up for the deficiency and enables the cancer to grow again. In a case reported by Mr, Stanley Boyd recurrence did not occur until after a period of much longer duration than eighteen months, and it would appear that the best method of utilizing the ameliorative effects which are brought about by oóphorectomy is to strictly judge each case on its own merits and decide accordingly. It is usual in the post-operative treatment of these patients to administer thyroid extract, but it has not been clearly shown that any permanent improvement results therefrom—*Med. Press.*

Trional Poisoning.

Hart records the flolowing case: During two months a neurasthenic woman had taken about 30 xv-gr. doses of trional, when she was seized with symptoms of acute gastro-enteric inflammation. Five days after the onset the urine was black in colour, and contained hæmatoporphyrin, a trace of albumen, and a few granular cases. The heart became rapid, weak, and irregular, with a loud rough apex murmur. Within a few days there followed tingling about the vulva, then in the arms and legs, with diminished sensibility, loss of power, and decreased reflexes. Three weeks after the onset well-marked double wrist-drop and foot-drop had developed. The extensors of the wrist and ankle showed the reaction of degeneration. There was marked hypersensitiveness of the extremities, loss of weight, delirium, and hallucinations. At this time the urine had become almost free from hæmatoporhyrin, but contained a trace of albumen. The patient soon began a tedious convalescence, which lasted consiberably more than a year. The nerves recovered their function in the same order in which they were affected, the vagus involvement disappearing first. The case suggests an affinity of trional for certain groups of cells in the anterior horns of the cord, comparable to that of some metallic poisons, and also emphasises the cumulative action of the drug first demonstrated by Mosso in 1894.—*British Medical Journal.*

Medical Student Killed.

W. L. Royce, a member of the senior class of the Kentucky School of Medicine and an interne at the College Hospital, Louisville, was stabbed to death a few days ago by a negro who was employed as a helper in the dissecting-room.

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A Judge's Opinion of Osteopathy.

We fail to see of what use it is to pass a law for the regulation of the practice of medicine and surgery when any county judge can deliberately misinterpret the act so as to render it inoperative. Recently, in Venango County, Pennsylvania, the judge in the Common Pleas Court rendered an extraordinary decision in a case ivnolving the legal status of osteopathy; and the grounds upon which his decision was based were as fair a sample of judicial sophistry or words-splitting as it has been our lot to see. Judge Criswell declared that the "practice of medicine," as defined by the act of Legislature, means the treatment of disease by the use merely of drugs, and that any other kind of rreatment is not the "practice of medicine." Therefore, as asteopathy does not treat disease by the use of drugs, it is not a practice of medicine within the meaning of the law, and its practitioners can have full swing in the State of Pennsylvania without a license and without let or hindrance.

It is difficult to characterize such judicial wisdom as this. The respect which we owe the bench is severely tested by the utterance of such Dogberry opinions. According to Judge Criswell, a physician is simply a drug dispenser. What a surgeon is, in his opinion, we do not pretend to know. To keep within the meaning of the law, the doctor must prescribe pellets. If he attempts to practice in the broad field of preventive medicine, of hygiene, of dietetics, of hydrotherapy, of climatology, of suggestive therapeutics, of psychiatry, of obstetrics, of ophthalmology, and of three-fourths of the whole field of surgery (i. e., so far as he practises in these fields without drugs) he is no doctor. Ergo, any ignorant charlatan can enter the fields, and, so long as he gives no drugs, he is not required to have license under the laws of Pennsylvania! Fortunately, it is sufficient merely to present Judge Criswell's opinion in order to show its foolishness. We trust the Supreme Court will reverse his decision and save the Commonwealth from such stultification.—*The Philadelphia Medical Journal.*

Treatment of Hydatid Cysts.

Vegas and Cranwell (Rev. de Chir., April, 1901) publish the results of their clinical and therapeutical experience of hydatid disease in the Argentine Republic, in which country, especially in the district of Buenos Aires, this parasitic affection is very prevalent, and is steadily increasing year after year. This prevalence—equal to that in Australia and Iceland—is attributed to the large amount of cattle in the Argentine States and the number of neglected and ill-fed dogs which are kept to guard the farms. Of 952 cases of hydatid disease treated in the city of Buenos Aires since 1877, the liver was the seat of the disease in 641, the lung in 54, the spleen in 30, the kidney in 18, and the brain in 15. In these cases the cyst was invariably unilocular, but the author's statistics show a large proportion of instances of multiple cysts both in the originally affected and other organs. A description is given of a very fatal form of the disease named "peritoneal hydatidosis" in which the peritoneum is studded with thousands of small vesicles. The mortality from operation in the cases collected by the authors is about 12 per cent., the death-rate being highest in cases of multiple cysts of the abdominal organs and the brain. The method of operation favored by the authors and regarded by them as the method of election is that of so-called "marsupialisation" and drainage. This, though slow, is much more certain than the method of extracting the mother membrane, with subsequent suture and without drainage.—*British Medical Journal.*

Treatment of Nævus Vasculosus by X Rays.

Jutassy reports the case of a "port wine strain" covering the whole of the right side of the face in a man, aged 22, cured by the X rays. A small part of the cheek was first exposed, the rest of the face and head being protected by a lead mask. A month afterwards the exposed part of the nævus was paler than the rest. A larger area was then treated, and on this occasion the epidermis was detached, exposing the corium. The sore took two months to heal, but then the nævus had entirel disappeared, leaving a smooth white scar. A year and a half later the skin was normal over the greater part.—*British Medical Journal.*

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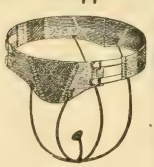

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The Treatment of Chronic Ulcer of the Stomach

Those of our readers who are interested in either general medicine or surgery must have read with pleasure aud profit the excellent paper by Mayo Robson, in a recent issue of the Journal, on the surgical treatment of chronic gastric ulcer. One who is familiar with the work done by Mr. Robson feels that what he writes on this subject must be authoritative, for few individual surgeons have had the extensive experience in operations upon the stomach and neighboring viscera which he has enjoyed. Although one cannot always agree with some of his st atements, and occasionally may feel that the author is too radical, yet on the whole his article on this interesting condition impresses the reader as being from the pen of one who thoroughly understands the subject and who has given it the most careful thought and consideration. He urges upon the practitioner the great necessity of instituting early the most rigid medical treatment for acute gastric ulcer and of keeping this treatment up for a number of weeks after pain and other symptoms have subsided. He shows us very plainly that subsidence of symptoms does not mean that the ulcer has entirely healed, but only that the healing process has become established. Chronic ulcer usually follows a number of relapses after lax and ineffectual medical treatment. Robson shows, too, the greatly lessening mortality brought about in all surgical work upon the stomach during the past few years, and proves that in the treatment of gastric ulcer this mortality is much less than in cases in which medical treatment alone is depended upon. The paper is a long one, but every general practitioner, as well as every surgeon, can derive benefit from its perusal.—*Philadelphia Medical Journal.*

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Suitable Nourishment for the Poor in Combating Alcoholism and Disease.

In discussing the best means of preventing alcoholism at the recent Anti-Alcohol Congress at Vienna, Dr. Burtscher, of Bern, laid great stress on the importance of an abundant, inexpensive food-supply for the poorer classes. He stated that the consumption of liquors is most prevalent and the effect worst among the most poorly nourished peoples of Europe. The excessive use of alcohol is not so frequently the cause of poorly developed and nourished bodies, as is imperfect nourishment the cause of an abnormal craving for liquors. The effects of alcohol are also decidedly worse among the badly nourished. Drunkenness, delirium tremens and mental diseases are uncommon among the well- nourished peoples of Germany as compared with the condition among the badly nourished Poles and Irish. Temperance societies, tracts, cures and institutions for the treatment of drunkenness will all prove of little avail as long as the poor are unable to obtain food to nourish themselves sufficiently well to prevent abnormal craving for stimulants. The shortsighted policy of the Agrarian party in striving to prevent the importation of less expensive maets from America and other countries was emphatically con demned.

Proper nourishment is certainly as important in preventing diseases as in preventing alcoholism. This is specially true as regards to the prevention of tuberculosis. In our own country no difficulty exists as to the possibility of procuring an abundance of nourishing food for so great are our resources of food supply that even our poorest classes eat at least twice as much meat as the most fortunate people of the same standing in most foreign countries. There is no lack of badly-nourished people among us, however, and they are not found among the poor alone. With us the fault lies more in the preparation than in the quality and abundance of food. Sloppy soups, greasy, indigestible fried meats, fried eggs, fried fish, fried potatoes, in fact every food possible fried and greasy; soggy hot bread and cakes, and unwholesome pastry lacking in food value are the common foods of not only the poor but many of the better classes. Cooking is now taught in many of our public schools and institutions as well as in private classes. Let us hope that this will promote much-needed reform and by teaching how digestible and appetizing food may be prepared, help to improve the physical condition of the people and thus lessen the frequency of disease.—*American Med. Jour.*

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Symptoms Resembling those of Cerebral Tumor.

H. Oppenheim gives notes of six cases presenting symytoms such as Jacksonian epilepsy and monoplegia, optic neuritis, etc., pointing to the presence of a tumor in the cerebeal motor cortex. The illnesses occurred in young persons and were recovered from, with or without treatment by iodides, bromides and iodides, etc. Oppenheim admits that in older patients a syphilitic origin of the symptoms would be suggested, but in the young patients in question there was no evidence of congenital syphilis. In only one of Oppenheim's cases were there scrofulous manifestations and in only one was there family tendency to tuberculosis, but Oppenheim adduces evidence from modern surgery showing the possible occurrence of a tuberculous process limited to a single portion of the brain and unaccompanied by tuberculous lesions in other parts of the body; he suggests that the cause of the symptoms in his cases may have been a curable form of tuberculous meningo-encephalitis, which French authors have described as "meningite en plaque tuberculeuse." The chronic onset and absence of fever weigh against the supposition of there having been an acute non-suppurative encephalitis, though recovery is well known to occur in this affection.—*Britsh Medical Journal.*

The municipality of Lyons has set aside an open space for a memorial monument to Leopold Ollier. The medical profession will erect the monument. The American committee hope to contribute $1000 to the fund. Dr. Howard A. Kelly is a member of the American committee.

The Italian Congress of Internal Medicine will be held at Pisa in October.

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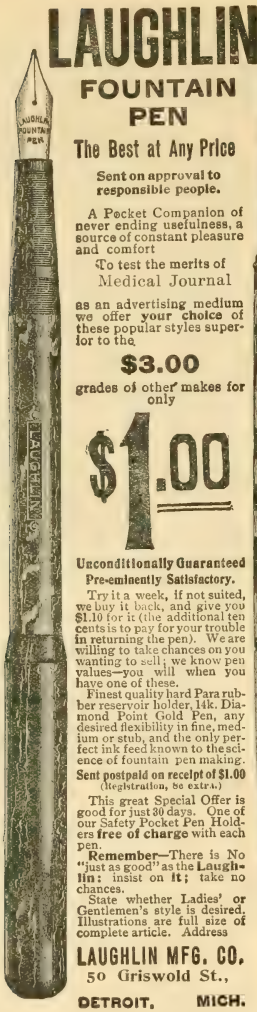
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Cerebral Abscess due to Pneumococcus.

Boinet (Rev. de Med., February 10th, 1901) describes 2 cases of abscess of the brain due to the pneumococcus, and has collected 7 cases from the literature. The first of his own cases occurred some weeks after recovery from an attack of broncho-pneumonia. The patient first suffered from repeated vertigo, with transitory loss of consciousness. He next complained of cramp and pain in the right arm, which was followed by contractures and involuntary movements. Within a few days there was complete right hemiplegia and rapid. Large doses of potassium iodide are sometimes useful, while a mercurial course in obstinate cases is sometimes advisable. Boracic acid and bismuth salts in ointment form are the best local applications in acute cases. In less acute and in chronic forms thorough bathing in soap or soda and water and subsequent use of a 5 to 10 per cent. ac. salicyl. ointment, yields good results. In treating the hairy parts—scalp, face, etc. —white precipitate ointment made up with bismuth subnitrate and resorcin. Tar preparations and pyrogallic acid are the most useful. The latter should not be used where there is fair hair. Chrysarobin is one of the most useful drugs in psoriasis of the body, but care must be taken that it does not set up an acute dermatitis. In its place eurobin 1 part, oxide of zinc and starch 10 parts each and vaseline 20 parts, formed into a paste, may be used if chrysarobin is not tolerated.—*British Medical Journal.*

Progress in Hygiene and Sanitary Science.

Medicine is such a progressive and forward-looking science that the young practitioner is very likely to know little of the history of the long struggle that has preceded our present attainment. This warrants and makes interesting the occasional glances backward or the summarizations of advance by the orators and presidents of our larger medical societies, and the one who is so absorbed in practical medicine that he fails to hear or read these addresses misses a great deal of edification, and that broad overlook which gives the mind poise and balance, even in the much-prized practical way. Moreover, in reference to Dr. Kober's capital address printed in the present issue of American Medicine by the courtesy of the Editor of the Journal of the American Medical Association, one has emphasized the great truth that our work, however practical, must more or less resolve itself at last into the prevention rather than the cure of disease. In this most excellent summary we see the beginnings of sanitary progress in olden and medieval times sweeping on to the modern victories over disease with which we are familiar, and looking onward to a greater lessening of the death-rate, and of the burden of suffering and expense which illness causes. To have extended the average length of human life in a few hundred years from 20 to 40 years is the noblest work of science and civilization.—*American Medicine.*

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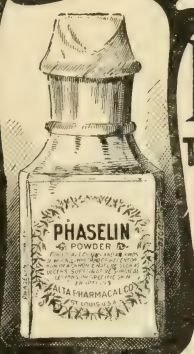

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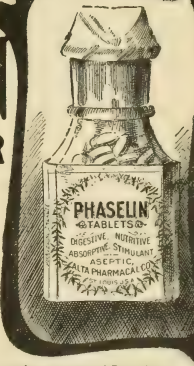

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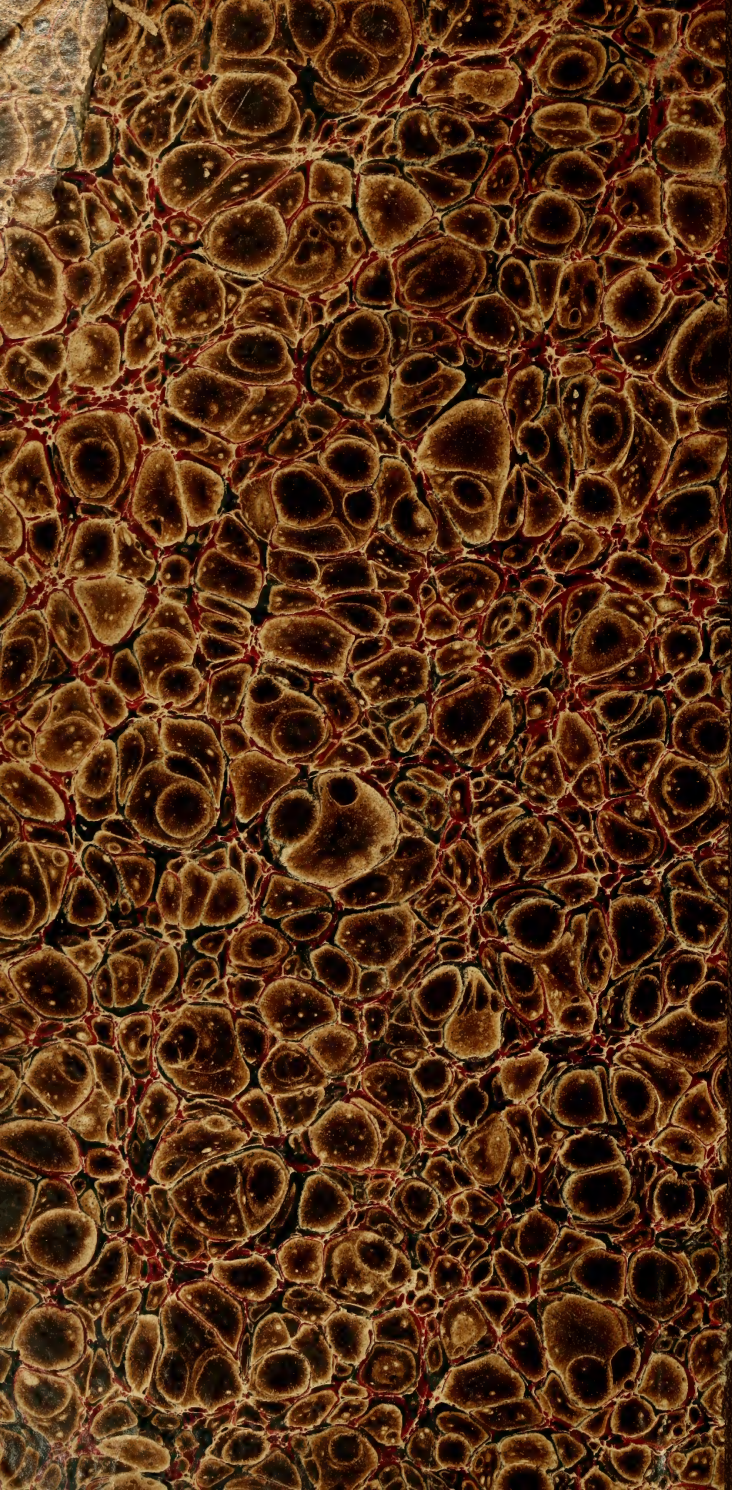
Plague in India.

The plague deaths for all India during the week ending May 4th numbered 3,298. This is a decline by some 800 on the previous week, and the fall has chiefly occurred in the Bengal districts. In Bombay City the death-rate from plague rose a little, amounting to 26 in excess of the previous week; but in the Bombay districts the plague death-rate fell to the extent of 127. In Calcutta the plague death-rate during the week ending May 4th reached 156, against 215 during the previous week. In Karachi the plague has increased during the week in question, 297, having succumbed to the disease, against 270 in the week previous.

The plague riots at Sialkot seem to have assumed a serious aspect during the first week of May, and the opinion is universal amongst all classes of natives that the disturbances were caused by the want of tact on the part of the native doctors in carrying out their duties. Be this as it may, the hospital assistants have been severely handled, and the Naib-Tahsildar was murdered by being burned in his own house.—*British Medical Journal.*

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